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FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) RENEWAL OFFICE OF AIR QUALITY

**Exopack, LLC
2200 D Avenue East, Freeman Field
Seymour, Indiana 47274-3259**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F071-16197-00028	
Issued by: Original signed Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: March 17, 2003

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary multiwall bag printing operation.

Authorized Individual:	Plant Manager
Source Address:	2200 D Avenue East, Freeman Field, Seymour, Indiana 47274-3259
Mailing Address:	2200 D Avenue East, Freeman Field, Seymour, Indiana 47274-3259
General Source Phone:	(812) 522-6868
SIC Code:	2674
Source Location Status:	Jackson
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source under PSD Rules Minor Source Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) Flexoline 8 color flexographic printing press, identified as PS1, constructed in 1986, with a maximum line speed of 1,200 feet per minute for ink or 400 feet per minute for ink and varnish, exhausting to one (1) stack, identified as S2, and two (2) vents, identified as V3 and V4.
- (b) One (1) Flexoline 4 color flexographic printing press, identified as PS2, constructed in 1988, with a maximum line speed of 1,100 feet per minute, exhausting to two (2) vents, identified as V5 and V6.
- (c) One (1) Union Camp 2 color flexographic printing press, identified as PS3, constructed in 1996, with a maximum line speed of 500 feet per minute.
- (d) One (1) Advance Machine Technology one color flexographic printing press, identified as PS4, constructed in 1989, with a maximum line speed of 500 feet per minute.
- (e) One (1) two-color flexographic tail-end printing press, constructed in 2002, identified as PS5, with a maximum capacity of 155 pounds per hour of ink and varnish and with a maximum throughput of 44,700 square inches of paper per hour, exhausting to vent V5.
- (f) One (1) portable, two-color flexographic tail-end printing press, constructed in 2002, identified as PS6, with a maximum capacities of 155 pounds per hour of ink and varnish and will a maximum throughput of 44,700 square inches of paper per hour, exhausting to V6.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]
- (b) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons. [326 IAC 8-9-6]
- (c) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour:
 - (1) One (1) William & Davis Triples Manufacturing Company natural gas-fired boiler, constructed in 2000, with a maximum capacity of eighty-four hundredths (0.840) million British thermal units per hour, exhausting to stack S1. [326 IAC 6-2-4]
 - (2) Four (4) natural gas-fired press dryers, each with a maximum capacity of one (1) million British thermal units per hour.
 - (3) One (1) natural gas-fired press dryer, with a maximum capacity of one and six-tenths (1.6) million British thermal units per hour.
 - (4) Two (2) natural gas-fired space heaters, each with a maximum capacity of twenty-five hundredths (0.25) million British thermal units per hour.
 - (5) Two (2) natural gas-fired space heaters, each with a maximum capacity of three-tenths (0.3) million British thermal units per hour.
 - (6) Four (4) natural gas-fired space heaters, each with a maximum capacity of thirty-five hundredths (0.35) million British thermal units per hour.
 - (7) Five (5) natural gas-fired space heaters, each with a maximum capacity of four-tenths (0.4) million British thermal units per hour.
- (d) Vessels storing lubricating oils, hydraulic oils, and machining fluids.
- (e) Solvent recycling systems with batch capacity less than or equal to 100 gallons.
- (f) Water based adhesives that are less than or equal to 5% by volume of VOCs excluding HAPs.
- (g) Any operation using aqueous solutions containing less than 1% by weight VOCs excluding HAPs.
- (h) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (i) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (j) On-site fire and emergency response training approved by the department.
- (k) A laboratory as defined in 326 IAC 2-7-1(21)(D).

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deletedby this permit.
- (b) All previous registrations and permits are superseded by this permit.

SECTION B

GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)] [326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.4 Enforceability [326 IAC 2-8-6]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.

- (c) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
 - (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; and
 - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document

is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

- (c) The annual compliance certification report shall include the following:
- (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
 - (5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs), including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

B.14 Emergency Provisions [326 IAC 2-8-12]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.

- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section) or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated

noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
 - (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]
 - (1) A timely renewal application is one that is:
 - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
 - (2) If IDEM, OAQ upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application shall be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15] [326 IAC 2-8-11.1]

- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

- (b) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (c) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit

responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16] [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4320 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Particulate Emission Limitations for Process with Process Weight Rates Less than One Hundred (100) Pounds per Hour [40 CFR 52 Subpart P] [326 IAC 6-3-2]

- (a) Pursuant to 40 CFR 52 Subpart P, the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 hundred pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

- (a) Pursuant to 326 IAC 2-8:
 - (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also satisfy the requirements of 326 IAC 2-3 (Emission Offset);
 - (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
 - (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.
- (b) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.
- (c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above specified limits.
- (d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

C.6 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.7 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

The Permittee shall comply with the applicable requirements of 326 IAC 14-10, 326 IAC 18, and 40 CFR 61.140.

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

Testing Requirements [326 IAC 2-8-4(3)]

C.9 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.13 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP).

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.15 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.16 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.17 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156

- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10): Printing Presses

- (a) One (1) Flexoline 8 color flexographic printing press, identified as PS1, constructed in 1986, with a maximum line speed of 1,200 feet per minute for ink or 400 feet per minute for ink and varnish, exhausting to one (1) stack, identified as S2, and two (2) vents, identified as V3 and V4.
- (b) One (1) Flexoline 4 color flexographic printing press, identified as PS2, constructed in 1988, with a maximum line speed of 1,100 feet per minute, exhausting to two (2) vents, identified as V5 and V6.
- (c) One (1) Union Camp 2 color flexographic printing press, identified as PS3, constructed in 1996, with a maximum line speed of 500 feet per minute.
- (d) One (1) Advance Machine Technology one color flexographic printing press, identified as PS4, constructed in 1989, with a maximum line speed of 500 feet per minute.
- (e) One (1) two-color flexographic tail-end printing press, constructed in 2002, identified as PS5, with a maximum capacity of 155 pounds per hour of ink and varnish and with a maximum throughput of 44,700 square inches of paper per hour, exhausting to vent V5.
- (f) One (1) portable, two-color flexographic tail-end printing press, constructed in 2002, identified as PS6, with a maximum capacities of 155 pounds per hour of ink and varnish and will a maximum throughput of 44,700 square inches of paper per hour, exhausting to V6.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 General Provisions Relating to NESHAP [326 IAC 20-1] [40 CFR 63, Subpart A]

The provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to flexographic presses PS1, PS2, PS3, PS4, PS5, and PS6 except when otherwise specified in 40 CFR 63, Subpart KK.

D.1.2 Printing and Publishing Industry [326 IAC 20] [40 CFR 63, Subpart KK]

Flexographic presses PS1, PS2, PS3, PS4, PS5, and PS6 are subject to the requirements of 40 CFR 63, Subpart KK (National Emission Standards for the Printing and Publishing Industry). There are no emission limitations applicable to these units. Record keeping requirements applicable to these units are included in Condition D.1.8(a) of this section.

D.1.3 Volatile Organic Compounds (VOC) [326 IAC 2-2] [40 CFR 52.21] [326 IAC 2-8]

The VOC input to PS1, PS2, PS3, PS4, PS5, and PS6, combined, shall not exceed ninety-nine (99) tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit is structured such that, when including the emissions from the insignificant activities, source total VOC emissions remain less than one hundred (100) tons per year. Compliance with this limitation renders the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration), 40 CFR 52.21, and 326 IAC 2-7 (Part 70 Permit Program) not applicable.

D.1.4 Hazardous Air Pollutants (HAPs) [326 IAC 2-8]

- (a) The input of a single HAP to PS1, PS2, PS3, PS4, PS5, and PS6 shall be limited to less than ten (10) tons per twelve (12) consecutive month period with compliance determined

at the end of each month. This limit restricts the single HAP emissions from the source to less than ten (10) tons per year.

- (b) The input of any combination of HAPs to PS1, PS2, PS3, PS4, PS5, and PS6 shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit restricts the emissions of any combination of HAPs from the source to less than twenty-five (25) tons per year.

Compliance with these limits renders the requirements of 326 IAC 2-7 (Part 70 Permit Program) not applicable.

D.1.5 Volatile Organic Compounds (VOC) [326 IAC 8-5-5]

Pursuant to 326 IAC 8-5-5 (Graphic Arts Operations), for flexographic presses PS1, PS2, PS3, PS4, PS5, and PS6:

- (a) The ink as it is applied to the substrate, less water, shall contain, sixty percent (60%) by volume or more nonvolatile material; or
- (b) The volatile fraction of the ink, as it is applied to the substrate, less water, contains twenty-five percent (25%) by volume or less of volatile organic compound and seventy-five percent (75%) by volume or more of water.

D.1.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities.

Compliance Determination Requirements

D.1.7 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAPs) [326 IAC 8-1-2] [326 IAC 8-1-4]

Compliance with the VOC content and usage limitations contained in Conditions D.1.3 and D.1.4 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.8 Record Keeping Requirements

- (a) Pursuant to 40 CFR 63, Subpart KK, the Permittee shall maintain records needed to demonstrate that the source is an area source. These records shall include the mass of all HAP containing material used and the mass fraction of HAP present in each HAP containing material used on a monthly basis.
- (b) To document compliance with Conditions D.1.3, D.1.4, and D.1.5, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC and HAP usage limits and/or the VOC and HAP emission limits established in Conditions D.1.3, D.1.4, and D.1.5.
 - (1) The VOC and HAP content of each coating material and solvent used.
 - (2) The amount of coating material and solvent used on a monthly basis.
 - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

- (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
- (3) The monthly cleanup solvent usage.
 - (4) The total VOC and HAP usage for each month.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.9 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.3 and D.1.4 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities

- (a) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]
- (b) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons. [326 IAC 8-9-6]
- (c) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour:
 - (1) One (1) William & Davis Triples Manufacturing Company natural gas-fired boiler, constructed in 2000, with a maximum capacity of eighty-four hundredths (0.840) million British thermal units per hour, exhausting to stack S1. [326 IAC 6-2-4]

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Particulate [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), the particulate emissions from the 0.840 million British thermal unit per hour natural gas-fired boiler shall not exceed 0.6 pounds per million British thermal unit heat input.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.2.2 Record Keeping Requirements

- (a) Pursuant to 326 IAC 8-9-6 (Volatile Organic Liquid Storage Vessels), the Permittee shall maintain records for the life of the vessel of the following for each insignificant volatile organic liquid storage vessel:
 - (1) The vessel identification number;
 - (2) The vessel dimensions; and
 - (3) The vessel capacity.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.3

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities

- (c) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour:
 - (2) Four (4) natural gas-fired press dryers, each with a maximum capacity of one (1) million British thermal units per hour.
 - (3) One (1) natural gas-fired press dryer, with a maximum capacity of one and six-tenths (1.6) million British thermal units per hour.
 - (4) Two (2) natural gas-fired space heaters, each with a maximum capacity of twenty-five hundredths (0.25) million British thermal units per hour.
 - (5) Two (2) natural gas-fired space heaters, each with a maximum capacity of three-tenths (0.3) million British thermal units per hour.
 - (6) Four (4) natural gas-fired space heaters, each with a maximum capacity of thirty-five hundredths (0.35) million British thermal units per hour.
 - (7) Five (5) natural gas-fired space heaters, each with a maximum capacity of four-tenths (0.4) million British thermal units per hour.
- (d) Vessels storing lubricating oils, hydraulic oils, and machining fluids.
- (e) Solvent recycling systems with batch capacity less than or equal to 100 gallons.
- (f) Water based adhesives that are less than or equal to 5% by volume of VOCs excluding HAPs.
- (g) Any operation using aqueous solutions containing less than 1% by weight VOCs excluding HAPs.
- (h) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (i) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (j) On-site fire and emergency response training approved by the department.
- (k) A laboratory as defined in 326 IAC 2-7-1(21)(D).

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

There are no specific requirements applicable to these units.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION**

Source Name: Exopack, LLC
Source Address: 2200 D Avenue East, Freeman Field, Seymour, Indiana 47274-3259
Mailing Address: 2200 D Avenue East, Freeman Field, Seymour, Indiana 47274-3259
FESOP No.: F071-16197-00028

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 Affidavit (specify) _____
- 9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT**

Source Name: Exopack, LLC
Source Address: 2200 D Avenue East, Freeman Field, Seymour, Indiana 47274-3259
Mailing Address: 2200 D Avenue East, Freeman Field, Seymour, Indiana 47274-3259
FESOP No.: F071-16197-00028

This form consists of 2 pages

Page 1 of 2

- 9** This is an emergency as defined in 326 IAC 2-7-1(12)
 CThe Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
 CThe Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____
Title / Position: _____
Date: _____
Phone: _____

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Source Name: Exopack, LLC
Source Address: 2200 D Avenue East, Freeman Field, Seymour, Indiana 47274-3259
Mailing Address: 2200 D Avenue East, Freeman Field, Seymour, Indiana 47274-3259
FESOP No.: F071-16197-00028
Facility: PS1, PS2, PS3, PS4, PS5, and PS6
Parameter: VOC input
Limit: The VOC input to PS1, PS2, PS3, PS4, PS5, and PS6, combined, shall not exceed ninety-nine (99) tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Source Name: Exopack, LLC
Source Address: 2200 D Avenue East, Freeman Field, Seymour, Indiana 47274-3259
Mailing Address: 2200 D Avenue East, Freeman Field, Seymour, Indiana 47274-3259
FESOP No.: F071-16197-00028
Facility: PS1, PS2, PS3, PS4, PS5, and PS6
Parameter: HAP input
Limit: The input of a single HAP to PS1, PS2, PS3, PS4, PS5, and PS6 shall be limited to less than ten (10) tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

Month	Column 1		Column 2		Column 1 + Column 2	
	This Month		Previous 11 Months		12 Month Total	
	Single HAP	Total HAP	Single HAP	Total HAP	Single HAP	Total HAP
Month 1						
Month 2						
Month 3						

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Exopack, LLC
Source Address: 2200 D Avenue East, Freeman Field, Seymour, Indiana 47274-3259
Mailing Address: 2200 D Avenue East, Freeman Field, Seymour, Indiana 47274-3259
FESOP No.: F071-16197-00028

Months: _____ to _____ Year: _____

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Federally Enforceable State Operating Permit (FESOP) Renewal

Source Background and Description

Source Name: Exopack, LLC
Source Location: 2200 D Avenue East, Freeman Field, Seymour, Indiana 47274-3259
County: Jackson
SIC Code: 2674
Operation Permit No.: F071-16197-00028
Permit Reviewer: ERG/KC

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from Exopack, LLC relating to the operation of multiwall bag printing operation.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) Flexoline 8 color flexographic printing press, identified as PS1, constructed in 1986, with a maximum line speed of 1,200 feet per minute for ink or 400 feet per minute for ink and varnish, exhausting to one (1) stack, identified as S2, and two (2) vents, identified as V3 and V4.
- (b) One (1) Flexoline 4 color flexographic printing press, identified as PS2, constructed in 1988, with a maximum line speed of 1,100 feet per minute, exhausting to two (2) vents, identified as V5 and V6.
- (c) One (1) Union Camp 2 color flexographic printing press, identified as PS3, constructed in 1996, with a maximum line speed of 500 feet per minute.
- (d) One (1) Advance Machine Technology one color flexographic printing press, identified as PS4, constructed in 1989, with a maximum line speed of 500 feet per minute.
- (e) One (1) two-color flexographic tail-end printing press, constructed in 2002, identified as PS5, with a maximum capacity of 155 pounds per hour of ink and varnish and with a maximum throughput of 44,700 square inches of paper per hour, exhausting to vent V5.
- (f) One (1) portable, two-color flexographic tail-end printing press, constructed in 2002, identified as PS6, with a maximum capacities of 155 pounds per hour of ink and varnish and will a maximum throughput of 44,700 square inches of paper per hour, exhausting to V6.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment Receiving New Source Review Approval

There are no new emission units and pollution control equipment receiving new source review approval during this review process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]
- (b) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons. [326 IAC 8-9-6]
- (c) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour:
 - (1) One (1) William & Davis Triples Manufacturing Company natural gas-fired boiler, constructed in 2000, with a maximum capacity of eighty-four hundredths (0.840) million British thermal units per hour, exhausting to stack S1. [326 IAC 6-2-4]
 - (2) Four (4) natural gas-fired press dryers, each with a maximum capacity of one (1) million British thermal units per hour.
 - (3) One (1) natural gas-fired press dryer, with a maximum capacity of one and six-tenths (1.6) million British thermal units per hour.
 - (4) Two (2) natural gas-fired space heaters, each with a maximum capacity of twenty-five hundredths (0.25) million British thermal units per hour.
 - (5) Two (2) natural gas-fired space heaters, each with a maximum capacity of three-tenths (0.3) million British thermal units per hour.
 - (6) Four (4) natural gas-fired space heaters, each with a maximum capacity of thirty-five hundredths (0.35) million British thermal units per hour.
 - (7) Five (5) natural gas-fired space heaters, each with a maximum capacity of four-tenths (0.4) million British thermal units per hour.
- (d) Vessels storing lubricating oils, hydraulic oils, and machining fluids.
- (e) Solvent recycling systems with batch capacity less than or equal to 100 gallons.
- (f) Water based adhesives that are less than or equal to 5% by volume of VOCs excluding HAPs.
- (g) Any operation using aqueous solutions containing less than 1% by weight VOCs excluding HAPs.
- (h) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (i) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (j) On-site fire and emergency response training approved by the department.

- (k) A laboratory as defined in 326 IAC 2-7-1(21)(D).

Existing Approvals

The source has constructed or has been operating under the following previous approvals:

- (a) SPR 071-15347-00028, issued May 29, 2002;
- (e) AA 071-15657-00028, issued April 10, 2002;
- (b) AA 071-14953-00028, issued October 10, 2001;
- (c) AA 071-14459-00028, issued August 21, 2001;
- (d) AA 071-11219-00028, issued September 29, 1999; and
- (f) F 071-9061-00028, issued March 25, 1998.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the FESOP Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP Renewal application for the purposes of this review was received on July 11, 2002.

There was no notice of completeness letter mailed to the source.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (pages 1 through 5).

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous FESOP.

Pollutant	Unrestricted Potential Emissions (tons/yr)
PM	0.09
PM-10	0.36
SO ₂	0.03
VOC	562.76
CO	4.03
NO _x	4.79

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Unrestricted Potential Emissions (tons/yr)
Single HAP	Greater than 10
TOTAL	24.59

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of VOC is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (c) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.

Potential to Emit After Issuance

The source, issued a FESOP on March 25, 1998, has opted to remain a FESOP source, rather than apply for a Part 70 Operating Permit. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of this Federally Enforceable State Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit. Since the source has not constructed any new emission units, the source's potential to emit is based on the emission units included in the original FESOP. (F071-9061-00028; issued on March 25, 1998).

	Potential to Emit After Issuance (tons/year)						
Process/emission unit	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Printing Presses (PS1 through PS6)	0	0	0	Less than 99 (326 IAC 2-8)	0	0	Less than 10 for a single HAP; Less than 25 for any combination of HAPs (326 IAC 2-8)
Insignificant Combustion*	0.09	0.36	0.03	0.26	0.26	4.79	Neg
Total PTE After Issuance	0.09	0.36	0.03	Less than 100	0.26	4.79	Less than 10 for a single HAP; Less than 25 for any combination of HAPs

Neg = Negligible

*The emissions from the insignificant combustion sources are at maximum capacity.

County Attainment Status

The source is located in Jackson County.

Pollutant	Status
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Jackson County has been designated as attainment or unclassifiable for ozone.
- (b) Jackson County has been classified as attainment or unclassifiable for all criteria pollutants and lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.

Federal Rule Applicability

- (a) The requirements of 40 CFR 60, Subpart QQ (Standards of Performance for the Graphics Arts Industry: Publications Rotogravure Printing) are not applicable to this source because this rule applies to rotogravure printing presses and rotogravure presses are not operated at the source.
- (b) The insignificant storage tanks are not subject to the requirements of 40 CFR 60, Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storing Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 24, 1984) because each of the storage tanks has a capacity less than forty (40) cubic meters.
- (c) The insignificant natural gas-fired boiler is not subject to the requirements of 40 CFR 60, Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units) because the boiler has a capacity less than ten (10) million British thermal units per hour.
- (d) 40 CFR 63, Subpart KK (National Emission Standards for the Printing and Publishing Industry) applies to the flexographic presses because the source is an area source as described in 40 CFR 63.820(a)(2) and these presses each meet the definition of a wide-web flexographic press as described in 40 CFR 63.822. Pursuant to 40 CFR 63.820(a)(3), since the source is an area source, the flexographic presses are not subject to any emission limitations. Instead, they are subject to 40 CFR 63.829(d) and 40 CFR 63.830(b)(1). Pursuant to 40 CFR 63.829(d), the Permittee shall maintain records needed to demonstrate that the source is an area source. These records shall include the following: the mass of all HAP containing materials used and the mass fraction of HAP present in each HAP containing material used on a monthly basis. Pursuant to 40 CFR 63.830(b)(1), the Permittee shall submit an initial notification as required in 40 CFR 63.9(b).
- (e) This source is not subject to the provisions of 40 CFR 64, Compliance Assurance Monitoring (CAM). In order for this rule to apply, a specific emissions unit must meet three criteria for a given pollutant: 1) the unit is subject to an emission limitation or standard for the applicable regulated air pollutant, 2) the unit uses a control device to achieve compliance with any such emission limitation or standard, and, 3) the unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal or greater than 100 percent of the amount required for a source to be classified as a major source. PS1 and PS2 each have the potential to emit greater than one hundred (100) tons per year of VOC. However these units do not use a control device to meet any emission limitation. PS3, PS4, PS5, and PS6 each have the potential to emit less than one hundred (100) tons per year of VOC.

- (f) The requirements of Section 112(j) of the Clean Air Act (40 CFR Part 63.50 through 63.56) are not applicable to this source because the source is limiting emissions of a single HAP to less than ten (10) tons per year and emissions of any combination of HAPs to less than twenty-five (25) tons per year and the source does not include one or more units that belong to one or more source categories affected by the Section 112(j) MACT Hammer date of May 15, 2002.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

This source was constructed in 1986 and had the potential to emit 102.63 tons of VOC per year. The source is not one of the 28, therefore, they were a minor PSD source at the time of construction. In 1988, printing press PS2 was constructed which had the potential to emit 153.68 tons per year. This construction was not subject to PSD because it was a modification to a minor source and constructed equipment itself did not have VOC emissions greater than 250 tons per year. After the 1988 modification, the source now had the potential to emit a total of 256.31 tons of VOC per year making this source a PSD major source. In 1989, printing press PS4 was constructed. This press has the potential to emit 67.45 tons per year of VOC. A PSD permit was not obtained at that time and no limit was taken prior to 1989 to limit the source's potential emissions to less than two hundred fifty (250) tons per year. In 1996, printing press PS3 was constructed which has the potential to emit 74.67 tons of VOC per year. Again, no PSD permit was obtained and no limit was taken prior to 1996 to limit this source's potential emissions to less than two hundred fifty (250) tons per year. In 1998, the source applied for and received a FESOP permit, F071-9061-00028, issued March 25, 1998. This FESOP limited the potential to emit of the source to less than one hundred (100) tons per year. Compliance with this limit ensured PSD minor status for the source. In 2002 the source constructed printing presses PS5 and PS6. These units were included in the PSD minor limit and therefore, the construction of these units did not result in an increase in the potential to emit of the source.

This source did not obtain a PSD permit at the time of construction of printing press PS4 in 1989 and printing press PS3 in 1996. There are currently six (6) presses at the source. Current actual emissions from the whole source are typically approximately five hundred (500) pounds per month (3 tons per year). Based on all data available from the source, the maximum actual emissions from the past four (4) years is nine hundred fifty (950) pounds per month (5.7 tons per year). Therefore, actual emissions from each of these units never exceeded the PSD major source threshold. Also, the actual emissions from each of these presses never exceeded the VOC significance threshold of forty (40) tons per year. The actual emissions are also less than 40% of the major source limit and less than 40% of the VOC significance limit. There is documentation that the source applied for a permit to install the press in 1996 (PS3). At the time the potential to emit was calculated as 2.4 tons per year of VOC for this press and it was determined that the press was exempt. The source received an SSOA in 1996 which is further evidence that the actual emissions for the source are less than the PSD major source threshold. Therefore, it has been determined that a retroactive PSD permit is not necessary. The following limit has been incorporated to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable:

The VOC input to PS1, PS2, PS3, PS4, PS5, and PS6, combined, shall not exceed ninety-nine (99) tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit is structured such that, when including the emissions from the insignificant activities, the source total VOC emissions remain less than two hundred fifty (250) tons per year. Compliance with this limitation renders the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants)

- (a) The requirements of 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) do not apply to PS1, PS2, PS3, or PS4 because these units were constructed prior to July 27, 1997.

- (b) The requirements of 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) do not apply to PS5 or PS6 even though these units were constructed after July 27, 1997 because the source is limiting the potential to emit of any single HAP to less than ten (10) tons per year and the potential to emit of any combination of HAPs to less than twenty-five (25) tons per year.

326 IAC 2-6 (Emission Reporting)

This source is located in Jackson County and is limiting VOC emissions to less than one hundred (100) tons per year. Emissions of all other criterial pollutants are less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 2-8 (FESOP)

The Permittee shall comply with the following limitations:

- (a) The VOC input to PS1, PS2, PS3, PS4, PS5, and PS6, combined, shall be less than ninety-nine (99) tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit is structured such that, when including the emissions from the insignificant activities, the source total VOC emissions remain less than one hundred (100) tons per year.
- (b) The input of a single HAP to PS1, PS2, PS3, PS4, PS5, and PS6 shall be limited to less than ten (10) tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit restricts the single HAP emissions from the source to less than ten (10) tons per year.
- (c) The input of any combination of HAPs to PS1, PS2, PS3, PS4, PS5, and PS6 shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit restricts the emissions of any combination of HAPs from the source to less than twenty-five (25) tons per year.

Compliance with these limits renders the requirements of 326 IAC 2-7 (Part 70 Permit Program) not applicable.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Printing Presses (PS1, PS2, PS3, PS4, PS5, and PS6)

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

On June 12, 2002, revisions to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) became effective; this rule was previously referred to as 326 IAC 6-3 (Process Operations). As of the date this permit is being issued, these revisions have not been approved by EPA into the Indiana State Implementation Plan (SIP); therefore, the requirements from the previous version of 326 IAC 6-3 (Process Operations), which have been approved into the SIP, will remain applicable requirements until the revisions to 326 IAC 6-3 are approved into the SIP and the condition is modified in a subsequent permit action.

The printing presses (PS1, PS2, PS3, PS4, PS5, and PS6) are not subject to the requirements of 326 IAC 6-3-2 (Process Operations) or 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) because these units do not have the potential to emit any particulate.

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

PS1, PS2, PS3, PS4, PS5, and PS6 are not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) even though they were constructed after January 1, 1980 and they have the potential to emit greater than twenty-five (25) tons of VOC per year because they are subject to 326 IAC 8-5-5 (Graphic Arts Operations).

326 IAC 8-2-5 (Paper Coating Operations)

This source is not subject to the requirements of 326 IAC 8-2-5 (Paper Coating Operations) because this source is subject to the requirements of 326 IAC 8-5-5 (Graphic Arts Operations).

326 IAC 8-5-5 (Graphics Arts Operations)

PS1, PS2, PS3, PS4, PS5, and PS6 are subject to the requirements of 326 IAC 8-5-5 (Graphic Arts Operations) because they were constructed after 1980. Pursuant to this rule:

- (a) The ink as it is applied to the substrate, less water, shall contain, sixty percent (60%) by volume or more nonvolatile material; or
- (b) The volatile fraction of the ink, as it is applied to the substrate, less water, contains twenty-five percent (25%) by volume or less of volatile organic compound and seventy-five percent (75%) by volume or more of water.

Based on the Material Safety Data Sheets (MSDS), Certified Product Data Sheets (CPDS), and the calculations, the printing presses are in compliance with this requirement.

326 IAC 8-6 (Organic Solvent Emission Limitations)

This source is not subject to the requirements of 326 IAC 8-6 (Organic Solvent Emission Limitations) because it was constructed after 1980 and is limiting VOC emissions to less than one hundred (100) tons per year.

326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties)

This source is not subject to the requirements of 326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties) because it is located in Jackson County, not Lake, Porter, Clark, or Floyd Counties.

State Rule Applicability - Paved and Unpaved Roads and Parking Areas

326 IAC 6-4 (Fugitive Dust Emissions)

The Permittee shall not allow fugitive dust to escape beyond the property, right of way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

This source is not subject to the requirements of 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations) because it was constructed after 1985 and does not have the potential to emit greater than twenty-five (25) tons of fugitive particulate matter per year.

State Rule Applicability - Insignificant Natural Gas-Fired Boiler

326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating)

The insignificant natural gas-fired boiler is subject to the requirements of 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating) because it was constructed after 1983. Since the capacity of this boiler is less than ten (10) million British thermal units per hour,

the particulate emissions from the 0.840 million British thermal unit per hour natural gas-fired boiler shall not exceed 0.6 pounds per million British thermal unit heat input.

State Rule Applicability - Insignificant Storage Tanks

326 IAC 8-9-6 (Volatile Organic Liquid Storage Vessels)

Pursuant to 326 IAC 8-9-6 (Volatile Organic Liquid Storage Vessels), the Permittee shall maintain records for the life of the vessel of the following for each insignificant volatile organic liquid storage vessel:

- (a) The vessel identification number;
- (b) The vessel dimensions; and
- (c) The vessel capacity.

Testing Requirements

Testing was not required in F071-9061-00028, issued March 25, 1998, and testing is not required in this permit. The printing presses are subject to the requirements of 326 IAC 8-5-5 (Graphic Arts Operations) and compliance with this regulation can be determined by MSDS. The printing presses are also subject to a VOC and HAP usage limit to render the requirements of 326 IAC 2-7 (Part 70 Permit Program) not applicable. Record keeping and reporting requirements will ensure compliance with this limit.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

Conclusion

The operation of this multiwall bag printing operation shall be subject to the conditions of the attached proposed FESOP No.: F071-16197-00028.

**Appendix A: Emissions Calculations
Flexographic Presses - VOC Emissions**

Page 1 of 5 TSD App A

Company Name: Exopack, LLC
Address City IN Zip: 2200 D Avenue East, Freeman Field, Seymour, IN 47274
Permit Number: 071-16197-00028
Pit ID: 071-00028
Reviewer: ERG/KC
Date: 10/30/2002

PS1

Note: PS1 can operate with just ink or with both ink and varnish for a total of 8760 hours per year.
Throughput

Press ID	Maximum Line Speed	Convert Feet to Inches	Maximum Print Width Inches	Convert Min to Hour	Hour per Year	MMin ² /yr
PS1 (Ink Only)	1200	12	58	60	1752	87796.22

Ink VOCs

Ink Name	Maximum Coverage (lb/MMin ²)	Weight % Volatiles	Flash Off %	Throughput (MMin ² /yr)	Convert lb to Ton	VOC Emissions (ton/yr)
Ink - BL White Base	6.944	8.00%	100.00%	87796.22	2000.00	24.39
Ink - 872C Gold	6.944	3.00%	100.00%	87796.22	2000.00	9.14
<i>Total</i>						33.53

Throughput

Press ID	Maximum Line Speed	Convert Feet to Inches	Maximum Print Width Inches	Convert Min to Hour	Hour per Year	MMin ² /yr
PS1 (Ink and Varnish)	400	12	58	60	7008	#####

Ink VOCs

Ink Name	Maximum Coverage (lb/MMin ²)	Weight % Volatiles	Flash Off %	Throughput (MMin ² /yr)	Convert lb to Ton	VOC Emissions (ton/yr)
Varnish - Hi-Slide	13.889	3.00%	100.00%	117061.63	2000.00	24.39
Ink - BL White Base	6.944	8.00%	100.00%	117061.63	2000.00	32.52
Ink - 872C Gold	6.944	3.00%	100.00%	117061.63	2000.00	12.19
<i>Total</i>						69.10

PS2

Throughput

Press ID	Maximum Line Speed	Convert Feet to Inches	Maximum Print Width Inches	Convert Min to Hour	Hour per Year	MMin ² /yr
PS2	1100	12	58	60	8760	#####

Ink VOCs

Ink Name	Maximum Coverage (lb/MMin ²)	Weight % Volatiles	Flash Off %	Throughput (MMin ² /yr)	Convert lb to Ton	VOC Emissions (ton/yr)
Ink - BL White Base	6.944	8.00%	100.00%	402399.36	2000.00	111.77
Ink - 872C Gold	6.944	3.00%	100.00%	402399.36	2000.00	41.91
<i>Total</i>						153.68

PS3

Throughput

Press ID	Maximum Line Speed	Convert Feet to Inches	Maximum Print Width Inches	Convert Min to Hour	Hour per Year	MMin ² /yr
PS3	500	12	62	60	8760	#####

Ink VOCs

Ink Name	Maximum Coverage (lb/MMin ²)	Weight % Volatiles	Flash Off %	Throughput (MMin ² /yr)	Convert lb to Ton	VOC Emissions (ton/yr)
Ink - BL White Base	6.944	8.00%	100.00%	195523.20	2000.00	54.31
Ink - 872C Gold	6.944	3.00%	100.00%	195523.20	2000.00	20.37
<i>Total</i>						74.67

PS4

Throughput

Press ID	Maximum Line Speed	Convert Feet to Inches	Maximum Print Width Inches	Convert Min to Hour	Hour per Year	MMin ² /yr
PS4	500	12	56	60	8760	#####

Ink VOCs

Ink Name	Maximum Coverage (lb/MMin ²)	Weight % Volatiles	Flash Off %	Throughput (MMin ² /yr)	Convert lb to Ton	VOC Emissions (ton/yr)
Ink - BL White Base	6.944	8.00%	100.00%	176601.60	2000.00	49.05
Ink - 872C Gold	6.944	3.00%	100.00%	176601.60	2000.00	18.39
<i>Total</i>						67.45

PS5

Throughput

Press ID	Maximum Line Speed	Convert Feet to Inches	Maximum Print Width Inches	Convert Min to Hour	Hour per Year	MMin ² /yr
PS5	500	12	62	60	8760	#####

Ink VOCs

Ink Name	Maximum Coverage (lb/MMin ²)	Weight % Volatiles	Flash Off %	Throughput (MMin ² /yr)	Convert lb to Ton	VOC Emissions (ton/yr)
Ink	6.944	12.07%	100.00%	195523.20	2000.00	81.94
<i>Total</i>						81.94

PS6

Throughput

Press ID	Maximum Line Speed	Convert Feet to Inches	Maximum Print Width Inches	Convert Min to Hour	Hour per Year	MMin ² /yr
PS6	500	12	62	60	8760	#####

Ink VOCs

Ink Name	Maximum Coverage (lb/MMin ²)	Weight % Volatiles	Flash Off %	Throughput (MMin ² /yr)	Convert lb to Ton	VOC Emissions (ton/yr)
Ink	6.944	12.07%	100.00%	195523.20	2000.00	81.94
<i>Total</i>						81.94

Cleanup Solvent Usage

Material	Density (lb/gal)	Weight % VOC	Maximum Usage (gal/mo)	VOC Emissions (ton/yr)
Cleanup Solvent	8.44	7.00%	55	0.19

METHODOLOGY

VOC Emissions (ton/yr) = Maximum Coverage (lb/MMin²) * Weight % Volatiles * Flash Off % * Throughput (MMin²/yr)

Throughput (MMin²/yr) = Maximum Line Speed (ft/min) * 60 Min/hr * Maximum Print Width (in) * 60 min/hr * hour/yr

VOC Emissions (ton/yr) = Density (lb/gal) * Weight % VOC * Maximum Usage (gal/mo) * 12 mo/yr / 2000 (lb/ton)

**Appendix A: Emissions Calculations
Flexographic Presses - HAP Emissions**

Page 3 of 5 TSD App A

**Company Name: Exopack, LLC
Address City IN Zip: 2200 D Avenue East, Freeman Field, Seymour, IN 47274
Permit Number: 071-16197-00028
Pit ID: 071-00028
Reviewer: ERG/KC
Date: 10/30/2002**

PS1

Throughput

Press ID	Maximum Line Speed (ft/min)	Convert Feet to Inches	Maximum Print Width Inches	Convert Min to Hour	Hour per Year	MMin ² /yr
PS1 (Ink and Varnish)	400	12	58	60	7008	117061.63

Ink HAPs

Ink Name	Maximum Coverage (lb/MMin ²)	Weight % HAPs	Flash Off %	Throughput (MMin ² /yr)	Convert lb to Ton	HAP Emissions (ton/yr)
Varnish - Hi-Slide	13.889	3.00%	100.00%	117061.63	2000.00	24.39

Cleanup Solvent Usage

Material	Density (lb/gal)	Weight % HAP	Maximum Usage (gal/mo)	HAP Emissions (ton/yr)
Cleanup Solvent	8.44	5.00%	55	0.14

METHODOLOGY

HAP Emissions (ton/yr) = Maximum Coverage (lb/MMin²) * Weight % HAPS * Flash Off % * Throughput (MMin²/yr) / 2000 lb/ton

Throughput (MMin²/yr) = Maximum Line Speed (ft/min) * 60 Min/hr * Maximum Print Width (in) * 60 min/hr * hour/yr

HAP Emissions (ton/yr) = Density (lb/gal) * Weight % HAP * Maximum Usage (gal/mo) * 12 mo/yr / 2000 (lb/ton)

Appendix A: Emissions Calculations

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Natural Gas Combustion

Company Name: Exopack, LLC
 Address City IN Zip: 2200 D Avenue East, Freeman Field, Seymour, IN 47274
 Permit Number: 071-16197-00028
 Plt ID: 071-00028
 Reviewer: ERG/KC
 Date: 10/30/2002

$0.84 + 1 + 1 + 1 + 1 + 1.6 + 0.25 + 0.25 + 0.3 + 0.3 + 0.35 + 0.35 + 0.35 + 0.35 + 0.4 + 0.4 + 0.4 + 0.4 = 10.94$ MMBtu/hr

Aggregate
 Heat Input Capacity
 MMBtu/hr
 Potential Throughput
 MMCF/yr

10.9

95.8

	Pollutant					
	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.09	0.36	0.03	4.79	0.26	4.03

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

(SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emissions Calculations

Page 5 of 5 TSD App A

Natural Gas Combustion**Company Name:** Exopack, LLC**Address City IN Zip:** 2200 D Avenue East, Freeman Field, Seymour, IN 47274**Permit Number:** 071-16197-00028**Plt ID:** 071-00028**Reviewer:** ERG/KC**Date:** 10/30/2002**HAPs - Organics**

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.006E-04	5.750E-05	3.594E-03	8.625E-02	1.629E-04

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	2.396E-05	5.271E-05	6.708E-05	1.821E-05	1.006E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Environmental Protection Agency

§ 63.820

TABLE 6.—VHAP OF POTENTIAL CONCERN—
Continued

CAS No.	Chemical name
334883	Diazomethane.
95954	2,4,5 - Trichlorophenol.
133904	Chloramben.
106887	1,2 - Epoxybutane.
108054	Vinyl acetate.
126998	Chloroprene.
123319	Hydroquinone.
92933	4-Nitrobiphenyl
"High-Concern" Pollutants	
56382	Parathion.
13463393	Nickel Carbonyl.
60344	Methyl hydrazine.
75218	Ethylene oxide.
151564	Ethylene imine.
77781	Dimethyl sulfate.
107302	Chloromethyl methyl ether.
57578	beta-Propiolactone.
100447	Benzyl chloride.
98077	Benzotrichloride.
107028	Acrolein.
584849	2,4 - Toluene diisocyanate.
75741	Tetramethyl lead.
78002	Tetraethyl lead.
12108133	Methylcyclopentadienyl manganese.
624839	Methyl isocyanate.
77474	Hexachlorocyclopentadiene.
62207765	Fluomine.
10210681	Cobalt carbonyl.
79118	Chloroacetic acid.
534521	4,6-Dinitro-o-cresol, and salts.
101688	Methylene diphenyl diisocyanate.
108952	Phenol.
62384	Mercury, (acetato-o) phenyl.
98862	Acetophenone.
108316	Maleic anhydride.
532274	2-Chloroacetophenone.
51285	2,4-Dinitrophenol.
108864	2-Methoxy ethanol.
98953	Nitrobenzene.
74839	Methyl bromide (Bromomethane).
75150	Carbon disulfide.
121697	N,N-Dimethylaniline.
"Unrankable" Pollutants	
106514	Quinone.
123386	Propionaldehyde.
120809	Catechol.
85449	Phthalic anhydride.
463581	Carbonyl sulfide.
132649	Dibenzofurans.
100027	4-Nitrophenol.
540841	2,2,4-Trimethylpentane.
11422	Diethanolamine.
822060	Hexamethylene-1,6-diisocyanate
	Glycol ethers ^b
	Polycyclic organic matter ^c

* = Currently an EPA weight of evidence classification is under review.

^a The EPA does not currently have an official weight-of-evidence classification for styrene. For purposes of this rule, styrene is treated as a "nonthreshold" pollutant. (See data report form in appendix A of the hazard ranking technical background document.)

^b Except for 2-ethoxy ethanol, ethylene glycol monobutyl ether, and 2-methoxy ethanol.

^c Except for benzo(b)fluoranthene, benzo(a)anthracene, benzo(a)pyrene, 7,12-dimethylbenz(a)anthracene, benz(c)acridine, chrysene, dibenz(ah) anthracene, 1,2:7,8-dibenzopyrene, indeno(1,2,3-cd)pyrene, but including dioxins and furans.

Subpart KK—National Emission Standards for the Printing and Publishing Industry

SOURCE: 61 FR 27140, May 30, 1996, unless otherwise.

§ 63.820 Applicability.

(a) The provisions of this subpart apply to:

(1) Each new and existing facility that is a major source of hazardous air pollutants (HAP), as defined in 40 CFR 63.2, at which publication rotogravure, product and packaging rotogravure, or wide-web flexographic printing presses are operated, and

(2) each new and existing facility at which publication rotogravure, product and packaging rotogravure, or wide-web flexographic printing presses are operated for which the owner or operator chooses to commit to, and meets the criteria of paragraphs (a)(2)(i) and (a)(2)(ii) of this section for purposes of establishing the facility to be an area source with respect to this subpart:

(i) Use less than 9.1 Mg (10 tons) per each rolling 12-month period of each HAP at the facility, including materials used for source categories or purposes other than printing and publishing, and

(ii) Use less than 22.7 Mg (25 tons) per each rolling 12-month period of any combination of HAP at the facility, including materials used for source categories or purposes other than printing and publishing.

(3) Each facility for which the owner or operator chooses to commit to and meets the criteria stated in paragraph (a)(2) of this section shall be considered an area source, and is subject only to the provisions of § 63.829(d) and § 63.830(b)(1) of this subpart.

(4) Each facility for which the owner or operator commits to the conditions in paragraph (a)(2) of this section may exclude material used in routine janitorial or facility grounds maintenance, personal uses by employees or other persons, the use of products for the purpose of maintaining electric, propane, gasoline and diesel powered motor vehicles operated by the facility, and the use of HAP contained in intake water (used for processing or noncontact cooling) or intake air (used

either as compressed air or for combustion).

(5) Each facility for which the owner or operator commits to the conditions in paragraph (a)(2) of this section to become an area source, but subsequently exceeds either of the thresholds in paragraph (a)(2) of this section for any rolling 12-month period (without first obtaining and complying with other limits that keep its potential to emit HAP below major source levels), shall be considered in violation of its commitment for that 12-month period and shall be considered a major source of HAP beginning the first month after the end of the 12-month period in which either of the HAP-use thresholds was exceeded. As a major source of HAP, each such facility would be subject to the provisions of this subpart as noted in paragraph (a)(1) of this section and would no longer be eligible to use the provisions of paragraph (a)(2) of this section, even if in subsequent 12-month periods the facility uses less HAP than the thresholds in paragraph (a)(2) of this section.

(6) An owner or operator of an affected source subject to paragraph (a)(2) of this section who chooses to no longer be subject to paragraph (a)(2) of this section shall notify the Administrator of such change. If, by no longer being subject to paragraph (a)(2) of this section, the facility at which the affected source is located becomes a major source:

(i) The owner or operator of an existing source must continue to comply with the HAP usage provisions of paragraph (a)(2) of this section until the source is in compliance with all relevant requirements for existing affected sources under this subpart;

(ii) The owner or operator of a new source must continue to comply with the HAP usage provisions of paragraph (a)(2) of this section until the source is in compliance with all relevant requirements for new affected sources under this subpart.

(7) Nothing in this paragraph is intended to preclude a facility from establishing area source status by limiting its potential to emit through other appropriate mechanisms that may be available through the permitting authority.

(b) This subpart does not apply to research or laboratory equipment.

§ 63.821 Designation of affected sources.

(a) The affected sources subject to this subpart are:

(1) All of the publication rotogravure presses and all affiliated equipment, including proof presses, cylinder and parts cleaners, ink and solvent mixing and storage equipment, and solvent recovery equipment at a facility.

(2) All of the product and packaging rotogravure or wide-web flexographic printing presses at a facility plus any other equipment at that facility which the owner or operator chooses to include in accordance with paragraph (a)(3) of this section, except

(i) Proof presses, and

(ii) Any product and packaging rotogravure or wide-web flexographic press which is used primarily for coating, laminating, or other operations which the owner or operator chooses to exclude, provided that

(A) The sum of the total mass of inks, coatings, varnishes, adhesives, primers, solvents, thinners, reducers, and other materials applied by the press using product and packaging rotogravure work stations and the total mass of inks, coatings, varnishes, adhesives, primers, solvents, thinners, reducers, and other materials applied by the press using wide-web flexographic print stations in each month never exceeds five weight-percent of the total mass of inks, coatings, varnishes, adhesives, primers, solvents, thinners, reducers, and other materials applied by the press in that month, including all inboard and outboard stations, and

(B) The owner or operator maintains records as required in § 63.829(f).

(3) The owner or operator of an affected source, as defined in paragraph (a)(2) of this section, may elect to include in that affected source stand-alone coating equipment subject to the following provisions:

(i) Stand-alone coating equipment meeting any of the criteria specified in this subparagraph is eligible for inclusion:

(A) The stand-alone coating equipment and one or more product and packaging rotogravure or wide-web

flexographic presses are used to apply solids-containing materials to the same web or substrate, or

(B) The stand-alone coating equipment and one or more product and packaging rotogravure or wide-web flexographic presses apply a common solids-containing material, or

(C) A common control device is used to control organic HAP emissions from the stand-alone coating equipment and from one or more product and packaging rotogravure or wide-web flexographic printing presses;

(ii) All eligible stand-alone coating equipment located at the facility is included in the affected source; and

(iii) No product and packaging rotogravure or wide-web flexographic presses are excluded from the affected source under the provisions of paragraph (a)(2)(ii) of this section.

(b) Each product and packaging rotogravure or wide-web flexographic printing affected source at a facility that is a major source of HAP, as defined in 40 CFR 63.2, that complies with the criteria of paragraphs (b)(1) or (b)(2) on and after the applicable compliance date as specified in § 63.826 of this subpart is subject only to the requirements of § 63.829(e) and § 63.830(b)(1) of this subpart.

(1) The owner or operator of the source applies no more than 500 kg per month, for every month, of inks, coatings, varnishes, adhesives, primers, solvents, thinners, reducers, and other materials on product and packaging rotogravure or wide-web flexographic printing presses, or

(2) The owner or operator of the source applies no more than 400 kg per month, for every month, of organic HAP on product and packaging rotogravure or wide-web flexographic printing presses.

(c) Each product and packaging rotogravure or wide-web flexographic printing affected source at a facility that is a major source of HAP, as defined in 40 CFR 63.2, that complies with neither the criterion of paragraph (b)(1) nor (b)(2) of this section in any month after the applicable compliance date as specified in § 63.826 of this subpart is, starting with that month, subject to all relevant requirements of this subpart and is no longer eligible to use the provi-

sions of paragraph (b) of this section, even if in subsequent months the affected source does comply with the criteria of paragraphs (b)(1) or (b)(2) of this section.

§ 63.822 Definitions.

(a) All terms used in this subpart that are not defined below have the meaning given to them in the CAA and in subpart A of this part.

Always-controlled work station means a work station associated with a dryer from which the exhaust is delivered to a control device, with no provision for the dryer exhaust to bypass the control device. Sampling lines for analyzers and relief valves needed for safety purposes are not considered bypass lines.

Capture efficiency means the fraction of all organic HAP emissions generated by a process that are delivered to a control device, expressed as a percentage.

Capture system means a hood, enclosed room, or other means of collecting organic HAP emissions into a closed-vent system that exhausts to a control device.

Car-seal means a seal that is placed on a device that is used to change the position of a valve or damper (e.g., from open to closed) in such a way that the position of the valve or damper cannot be changed without breaking the seal.

Certified product data sheet (CPDS) means documentation furnished by suppliers of inks, coatings, varnishes, adhesives, primers, solvents, and other materials or by an outside laboratory that provides the organic HAP content of these materials, by weight, measured using Method 311 of appendix A of this part 63 or an equivalent or alternative method (or formulation data as provided in § 63.827(b)) and the solids content of these materials, by weight, determined in accordance with § 63.827(c). The purpose of the CPDS is to assist the owner or operator in demonstrating compliance with the emission limitations presented in §§ 63.824–63.825.

Coating operation means the application of a uniform layer of material across the entire width of a substrate.

Coating station means a work station on which a coating operation is conducted.

Control device means a device such as a carbon adsorber or oxidizer which reduces the organic HAP in an exhaust gas by recovery or by destruction.

Control device efficiency means the ratio of organic HAP emissions recovered or destroyed by a control device to the total HAP emissions that are introduced into the control device, expressed as a percentage.

Day means a 24-consecutive-hour period.

Facility means all contiguous or adjoining property that is under common ownership or control, including properties that are separated only by a road or other public right-of-way.

Flexographic press means an unwind or feed section, a series of individual work stations, one or more of which is a flexographic print station, any dryers (including interstage dryers and overhead tunnel dryers) associated with the work stations, and a rewind, stack, or collection station. The work stations may be oriented vertically, horizontally, or around the circumference of a single large impression cylinder. Inboard and outboard work stations, including those employing any other technology, such as rotogravure, are included if they are capable of printing or coating on the same substrate.

Flexographic print station means a work station on which a flexographic printing operation is conducted. A flexographic print station includes a flexographic printing plate which is an image carrier made of rubber or other elastomeric material. The image (type and art) to be printed is raised above the printing plate.

HAP applied means the organic HAP content of all inks, coatings, varnishes, adhesives, primers, solvent, and other materials applied to a substrate by a product and packaging rotogravure or wide-web flexographic printing affected source.

HAP used means the organic HAP applied by a publication rotogravure printing affected source, including all organic HAP used for cleaning, parts washing, proof presses, and all organic HAP emitted during tank loading, ink mixing, and storage.

Intermittently-controllable work station means a work station associated with a dryer with provisions for the dryer exhaust to be delivered to or diverted from a control device depending on the position of a valve or damper. Sampling lines for analyzers and relief valves needed for safety purposes are not considered bypass lines.

Month means a calendar month or a prespecified period of 28 days to 35 days.

Never-controlled work station means a work station which is not equipped with provisions by which any emissions, including those in the exhaust from any associated dryer, may be delivered to a control device.

Overall Organic HAP control efficiency means the total efficiency of a control system, determined either by:

- (1) The product of the capture efficiency and the control device efficiency or
- (2) A liquid-liquid material balance.

Print station means a work station on which a printing operation is conducted.

Printing operation means the formation of words, designs, and pictures on a substrate other than fabric through the application of material to that substrate.

Product and packaging rotogravure printing means the production, on a rotogravure press, of any printed substrate not otherwise defined as publication rotogravure printing. This includes, but is not limited to, folding cartons, flexible packaging, labels and wrappers, gift wraps, wall and floor coverings, upholstery, decorative laminates, and tissue products.

Proof press means any device used only to check the quality of the image formation of rotogravure cylinders or flexographic plates, which prints only non-saleable items.

Publication rotogravure printing means the production, on a rotogravure press, of the following saleable paper products:

- (1) Catalogues, including mail order and premium,
- (2) Direct mail advertisements, including circulars, letters, pamphlets, cards, and printed envelopes,

(3) Display advertisements, including general posters, outdoor advertisements, car cards, window posters; counter and floor displays; point of purchase and other printed display material,

(4) Magazines,

(5) Miscellaneous advertisements, including brochures, pamphlets, catalog sheets, circular folders, announcements, package inserts, book jackets, market circulars, magazine inserts, and shopping news,

(6) Newspapers, magazine and comic supplements for newspapers, and preprinted newspaper inserts, including hi-fi and spectacular rolls and sections,

(7) Periodicals, and

(8) Telephone and other directories, including business reference services.

Research or laboratory equipment means any equipment for which the primary purpose is to conduct research and development into new processes and products, where such equipment is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for commercial sale in commerce, except in a de minimis manner.

Rotogravure press means an unwind or feed section, a series of one or more work stations, one or more of which is a rotogravure print station, any dryers associated with the work stations, and a rewind, stack, or collection section. Inboard and outboard work stations including those employing any other technology, such as flexography, are included if they are capable of printing or coating on the same substrate.

Rotogravure print station means a work station on which a rotogravure printing operation is conducted. A rotogravure print station includes a rotogravure cylinder and ink supply. The image (type and art) to be printed is etched or engraved below the surface of the rotogravure cylinder. On a rotogravure cylinder the printing image consists of millions of minute cells.

Stand-alone coating equipment means an unwind or feed section, a series of one or more coating stations and any associated dryers, and a rewind, stack or collection section that:

Is not part of a product and packaging rotogravure or wide-web flexographic press, and

Is used to conduct one or more coating operations on a substrate. Stand-alone coating equipment

May or may not process substrate that is also processed by a product and packaging rotogravure or wide-web flexographic press, apply solids-containing materials that are also applied by a product and packaging rotogravure or wide-web flexographic press, and utilize a control device that is also utilized by a product and packaging rotogravure or wide-web flexographic press. Stand-alone coating equipment is sometimes referred to as "off-line" coating equipment.

Wide-web flexographic press means a flexographic press capable of printing substrates greater than 18 inches in width.

Work station means a unit on a rotogravure or wide-web flexographic press where material is deposited onto a substrate.

(b) The symbols used in equations in this subpart are defined as follows:

(1) C_{ahi} =the monthly average, as applied, organic HAP content of solids-containing material, i , expressed as a weight-fraction, kg/kg.

(2) C_{asi} =the monthly average, as applied, solids content, of solids-containing material, i , expressed as a weight-fraction, kg/kg.

(3) C_{hi} =the organic HAP content of ink or other solids-containing material, i , expressed as a weight-fraction, kg/kg.

(4) C_{hij} =the organic HAP content of solvent j , added to solids-containing material i , expressed as a weight-fraction, kg/kg.

(5) C_{hj} =the organic HAP content of solvent j , expressed as a weight-fraction, kg/kg.

(6) C_i =the organic volatile matter concentration in ppm, dry basis, of compound i in the vent gas, as determined by Method 25 or Method 25A.

(7) C_{si} =the solids content of ink or other material, i , expressed as a weight-fraction, kg/kg.

(8) C_{vi} =the volatile matter content of ink or other material, i , expressed as a weight-fraction, kg/kg.

(9) E =the organic volatile matter control efficiency of the control device, percent.

(10) F =the organic volatile matter capture efficiency of the capture system, percent.

(11) G_i =the mass fraction of each solids containing material, i , which was applied at 20 weight-percent or greater solids content, on an as-applied basis, kg/kg.

(12) H =the total monthly organic HAP applied, kg.

(13) H_a =the monthly allowable organic HAP emissions, kg.

(14) H_L =the monthly average, as-applied, organic HAP content of all solids-containing materials applied at less than 0.04 kg organic HAP per kg of material applied, kg/kg.

(15) H_s =the monthly average, as-applied, organic HAP to solids ratio, kg organic HAP/kg solids applied.

(16) H_{si} =the as-applied, organic HAP to solids ratio of material i .

(17) L =the mass organic HAP emission rate per mass of solids applied, kg/kg.

(18) M_{Bi} =the sum of the mass of solids-containing material, i , applied on intermittently-controllable work stations operating in bypass mode and the mass of solids-containing material, i , applied on never-controlled work stations, in a month, kg.

(19) M_{Bj} =the sum of the mass of solvent, thinner, reducer, diluent, or other non-solids-containing material, j , applied on intermittently-controllable work stations operating in bypass mode and the mass of solvent, thinner, reducer, diluent, or other non-solids-containing material, j , applied on never-controlled work stations, in a month, kg.

(20) M_{ci} =the sum of the mass of solids-containing material, i , applied on intermittently-controllable work stations operating in controlled mode and the mass of solids-containing material, i , applied on always-controlled work stations, in a month, kg.

(21) M_{cj} =the sum of the mass of solvent, thinner, reducer, diluent, or other non-solids-containing material, j , applied on intermittently-controllable work stations operating in controlled mode and the mass of solvent, thinner, reducer, diluent, or other non-solids-containing material, j , applied on always-controlled work stations in a month, kg.

(22) M_t =the total organic volatile matter mass flow rate, kg/h.

(23) M_{ti} =the organic volatile matter mass flow rate at the inlet to the control device, kg/h.

(24) M_{to} =the organic volatile matter mass flow rate at the outlet of the control device, kg/h.

(25) M_{tu} =the mass of organic HAP used in a month, kg.

(26) M_i =the mass of ink or other material, i , applied in a month, kg.

(27) M_{ij} =the mass of solvent, thinner, reducer, diluent, or other non-solids-containing material, j , added to solids-containing material, i , in a month, kg.

(28) M_j =the mass of solvent, thinner, reducer, diluent, or other non-solids-containing material, j , applied in a month, kg.

(29) M_{Lj} =the mass of solvent, thinner, reducer, diluent, or other non-solids-containing material, j , added to solids-containing materials which were applied at less than 20 weight-percent solids content, on an as-applied basis, in a month, kg.

(30) M_{vr} =the mass of volatile matter recovered in a month, kg.

(31) M_{vu} =the mass of volatile matter, including water, used in a month, kg.

(32) MW_i =the molecular weight of compound i in the vent gas, kg/kg-mol.

(33) n =the number of organic compounds in the vent gas.

(34) p =the number of different inks, coatings, varnishes, adhesives, primers, and other materials applied in a month.

(35) q =the number of different solvents, thinners, reducers, diluents, or other non-solids-containing materials applied in a month.

(36) Q_{sd} =the volumetric flow rate of gases entering or exiting the control device, as determined by Method 2, dscm/h.

(37) R =the overall organic HAP control efficiency, percent.

(38) R_e =the overall effective organic HAP control efficiency for publication rotogravure, percent.

(39) R_c =the organic volatile matter collection and recovery efficiency, percent.

(40) S =the mass organic HAP emission rate per mass of material applied, kg/kg.

(41) 0.0416=conversion factor for molar volume, kg-mol/m³(@ 293 K and 760 mmHg).

§ 63.823 Standards: General.

Table 1 to this subpart provides cross references to the 40 CFR part 63, subpart A, general provisions, indicating the applicability of the general provisions requirements to this subpart KK.

§ 63.824 Standards: Publication rotogravure printing.

(a) Each owner or operator of any publication rotogravure printing affected source that is subject to the requirements of this subpart shall comply with these requirements on and after the compliance dates as specified in § 63.826 of this subpart.

(b) Each publication rotogravure affected source shall limit emissions of organic HAP to no more than eight percent of the total volatile matter used each month. The emission limitation may be achieved by overall control of at least 92 percent of organic HAP used, by substitution of non-HAP materials for organic HAP, or by a combination of capture and control technologies and substitution of materials. To demonstrate compliance, each owner or operator shall follow the procedure in paragraph (b)(1) of this section when emissions from the affected source are controlled by a solvent recovery device, the procedure in paragraph (b)(2) of this section when emissions from the affected source are controlled by an oxidizer, and the procedure in paragraph (b)(3) of this section when no control device is used.

(1) Each owner or operator using a solvent recovery device to control emissions shall demonstrate compliance by showing that the HAP emission limitation is achieved by following the procedures in either paragraph (b)(1)(i) or (b)(1)(ii) of this section:

(i) Perform a liquid-liquid material balance for each month as follows:

(A) Measure the mass of each ink, coating, varnish adhesive, primer, solvent, and other material used by the affected source during the month.

(B) Determine the organic HAP content of each ink, coating, varnish, adhesive, primer, solvent and other material used by the affected source during the month following the procedure in § 63.827(b)(1).

(C) Determine the volatile matter content, including water, of each ink, coating, varnish, adhesive, primer, solvent, and other material used by the affected source during the month following the procedure in § 63.827(c)(1).

(D) Install, calibrate, maintain and operate, according to the manufacturer's specifications, a device that indicates the cumulative amount of volatile matter recovered by the solvent recovery device on a monthly basis. The device shall be initially certified by the manufacturer to be accurate to within ± 2.0 percent.

(E) Measure the amount of volatile matter recovered for the month.

(F) Calculate the overall effective organic HAP control efficiency (R_e) for the month using Equation 1:

$$R_e = (100) \frac{M_{vu} - M_{hu} + \left[(M_{vr}) \left(M_{hu} / M_{vu} \right) \right]}{M_{vu}} \quad \text{Eq 1}$$

For the purposes of this calculation, the mass fraction of organic HAP present in the recovered volatile matter is assumed to be equal to the mass fraction of organic HAP present in the volatile matter used.

(G) The affected source is in compliance for the month, if R_e is at least 92 percent each month.

(ii) Use continuous emission monitors, conduct an initial performance test of capture efficiency, and continuously monitor a site specific operating parameter to assure capture efficiency as specified in paragraphs (b)(1)(ii)(A) through (b)(1)(ii)(E) of this section:

(A) Install continuous emission monitors to determine the total organic

volatile matter mass flow rate (e.g., by determining the concentration of the vent gas in grams per cubic meter, and the volumetric flow rate in cubic meters per second, such that the total organic volatile matter mass flow rate in grams per second can be calculated and summed) at both the inlet to and the outlet from the control device, such that the percent control efficiency (E)

of the control device can be calculated for each month.

(B) Determine the percent capture efficiency (F) of the capture system according to § 63.827(e).

(C) Calculate the overall effective organic HAP control efficiency (R_e) achieved for each month using Equation 2.

$$R_e = (100) \frac{M_{vu} - M_{hu} + [(E/100)(F/100)M_{hu}]}{M_{vu}} \quad \text{Eq 2}$$

(D) Install, calibrate, operate and maintain the instrumentation necessary to measure continuously the site-specific operating parameter established in accordance with § 63.828(a)(5) whenever a publication rotogravure printing press is operated.

(E) The affected source is in compliance with the requirement for the month if R_e is at least 92 percent, and the capture device is operated at an average value greater than, or less than (as appropriate) the operating parameter value established in accordance with § 63.828(a)(5) for each three-hour period.

(2) Each owner or operator using an oxidizer to control emissions shall demonstrate compliance by showing that the HAP emission limitation is achieved by following the procedure in either paragraph (b)(2)(i) or (b)(2)(ii) of this section:

(i) Demonstrate initial compliance through performance tests and continuing compliance through continuous monitoring as follows:

(A) Determine the oxidizer destruction efficiency (E) using the procedure in § 63.827(d).

(B) Determine the capture efficiency (F) using the procedure in § 63.827(e).

(C) [Reserved]

(D) Calculate the overall effective organic HAP control efficiency (R_e) achieved using Equation 2.

(E) The affected source is in initial compliance if R_e is at least 92 percent. Demonstration of continuing compliance is achieved by continuous monitoring of an appropriate oxidizer oper-

ating parameter in accordance with § 63.828(a)(4), and by continuous monitoring of an appropriate capture system monitoring parameter in accordance with § 63.828(a)(5). The affected source is in continuing compliance if the capture device is operated at an average value greater than or less than (as appropriate) the operating parameter value established in accordance with § 63.828(a)(5), and

(1) if an oxidizer other than a catalytic oxidizer is used, the average combustion temperature for all three-hour periods is greater than or equal to the average combustion temperature established under § 63.827(d), or

(2) if a catalytic oxidizer is used, the average catalyst bed inlet temperature for all three-hour periods is greater than or equal to the average catalyst bed inlet temperature established in accordance with § 63.827(d).

(ii) Use continuous emission monitors, conduct an initial performance test of capture efficiency, and continuously monitor a site specific operating parameter to assure capture efficiency in accordance with the requirements of paragraph (b)(1)(ii) of this section.

(3) To demonstrate compliance without the use of a control device, each owner or operator shall compare the mass of organic HAP used to the mass of volatile matter used each month, as specified in paragraphs (b)(3)(i) through (b)(3)(iv) of this section:

(i) Measure the mass of each ink, coating, varnish adhesive, primer, solvent, and other material used in the affected source during the month,

(ii) Determine the organic HAP content of each ink, coating, varnish, adhesive, primer, solvent, and other material used during the month following the procedure in § 63.827(b)(1), and

(iii) Determine the volatile matter content, including water, of each ink, coating, varnish, adhesive, primer, solvent, and other material used during the month following the procedure in § 63.827(c)(1).

(iv) The affected source is in compliance for the month if the mass of organic HAP used does not exceed eight percent of the mass of volatile matter used.

§ 63.825 Standards: Product and packaging rotogravure and wide-web flexographic printing.

(a) Each owner or operator of any product and packaging rotogravure or wide-web flexographic printing affected source that is subject to the requirements of this subpart shall comply with these requirements on and after the compliance dates as specified in § 63.826 of this subpart.

(b) Each product and packaging rotogravure or wide-web flexographic printing affected source shall limit emissions to no more than five percent of the organic HAP applied for the month; or to no more than four percent of the mass of inks, coatings, varnishes, adhesives, primers, solvents, reducers, thinners, and other materials applied for the month; or to no more than 20 percent of the mass of solids applied for the month; or to a calculated equivalent allowable mass based on the organic HAP and solids contents of the inks, coatings, varnishes, adhesives, primers, solvents, reducers, thinners, and other materials applied for the month. The owner or operator of each product and packaging rotogravure or wide-web flexographic printing affected source shall demonstrate compliance with this standard by following one of the procedures in paragraphs (b)(1) through (b)(10) of this section:

(1) Demonstrate that each ink, coating, varnish, adhesive, primer, solvent, diluent, reducer, thinner, and other material applied during the month contains no more than 0.04 weight-fraction organic HAP, on an as-purchased basis,

as determined in accordance with § 63.827(b)(2).

(2) Demonstrate that each ink, coating, varnish, adhesive, primer, and other solids-containing material applied during the month contains no more than 0.04 weight-fraction organic HAP, on a monthly average as-applied basis as determined in accordance with paragraphs (b)(2)(i)–(ii) of this section. The owner or operator shall calculate the as-applied HAP content of materials which are reduced, thinned, or diluted prior to application, as follows:

(i) Determine the organic HAP content of each ink, coating, varnish, adhesive, primer, solvent, diluent, reducer, thinner, and other material applied on an as-purchased basis in accordance with § 63.827(b)(2).

(ii) Calculate the monthly average as-applied organic HAP content, C_{ahi} of each ink, coating, varnish, adhesive, primer, and other solids-containing material using Equation 3.

$$C_{ahi} = \frac{\left(C_{hi} M_i + \sum_{j=1}^q C_{hij} M_{ij} \right)}{M_i + \sum_{j=1}^q M_{ij}} \quad \text{Eq 3}$$

(3)(i) Demonstrate that each ink, coating, varnish, adhesive, primer, and other solids-containing material applied, either

(A) Contains no more than 0.04 weight-fraction organic HAP on a monthly average as-applied basis, or

(B) Contains no more than 0.20 kg of organic HAP per kg of solids applied, on a monthly average as-applied basis.

(ii) The owner or operator may demonstrate compliance in accordance with paragraphs (b)(3)(ii) (A)–(C) of this section.

(A) Use the procedures of paragraph (b)(2) of this section to determine which materials meet the requirements of paragraph (b)(3)(i)(A) of this section,

(B) Determine the as-applied solids content following the procedure in § 63.827(c)(2) of all materials which do not meet the requirements of paragraph (b)(3)(i)(A) of this section. The owner or operator may calculate the

monthly average as-applied solids content of materials which are reduced, thinned, or diluted prior to application, using Equation 4, and

$$C_{asi} = \frac{C_{si} M_i}{M_i + \sum_{j=1}^q M_{ij}} \quad \text{Eq 4}$$

(C) Calculate the as-applied organic HAP to solids ratio, H_{si} , for all materials which do not meet the requirements of paragraph (b)(3)(i)(A) of this section, using Equation 5.

$$H_{si} = \frac{C_{ahi}}{C_{asi}} \quad \text{Eq 5}$$

(4) Demonstrate that the monthly average as-applied organic HAP content, H_L , of all materials applied is less than 0.04 kg HAP per kg of material applied, as determined by Equation 6.

$$H_L = \frac{\sum_{i=1}^p M_i C_{hi} + \sum_{j=1}^q M_j C_{hj}}{\sum_{i=1}^p M_i + \sum_{j=1}^q M_j} \quad \text{Eq 6}$$

(5) Demonstrate that the monthly average as-applied organic HAP content on the basis of solids applied, H_s , is less than 0.20 kg HAP per kg solids applied as determined by Equation 7.

$$H_s = \frac{\sum_{i=1}^p M_i C_{hi} + \sum_{j=1}^q M_j C_{hj}}{\sum_{i=1}^p M_i C_{si}} \quad \text{Eq 7}$$

(6) Demonstrate that the total monthly organic HAP applied, H , as determined by Equation 8, is less than the calculated equivalent allowable organic HAP, H_a , as determined by paragraph (e) of this section.

$$H = \sum_{i=1}^p M_i C_{hi} + \sum_{j=1}^q M_j C_{hj} \quad \text{Eq 8}$$

(7) Operate a capture system and control device and demonstrate an overall organic HAP control efficiency of at

least 95 percent for each month. If the affected source operates more than one capture system or more than one control device, and has only always-controlled work stations, then the owner or operator shall demonstrate compliance in accordance with the provisions of either paragraph (f) or (h) of this section. If the affected source operates one or more never-controlled work stations or one or more intermittently-controllable work stations, then the owner or operator shall demonstrate compliance in accordance with the provisions of paragraph (f) of this section. Otherwise, the owner or operator shall demonstrate compliance in accordance with the procedure in paragraph (c) of this section when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (d) of this section when emissions are controlled by an oxidizer.

(8) Operate a capture system and control device and limit the organic HAP emission rate to no more than 0.20 kg organic HAP emitted per kg solids applied as determined on a monthly average as-applied basis. If the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controllable work stations, then the owner or operator shall demonstrate compliance in accordance with the provisions of paragraph (f) of this section. Otherwise, the owner or operator shall demonstrate compliance following the procedure in paragraph (c) of this section when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (d) of this section when emissions are controlled by an oxidizer.

(9) Operate a capture system and control device and limit the organic HAP emission rate to no more than 0.04 kg organic HAP emitted per kg material applied as determined on a monthly average as-applied basis. If the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controllable work stations, then the owner or operator shall demonstrate compliance in accordance with the provisions of paragraph (f) of this section.

Otherwise, the owner or operator shall demonstrate compliance following the procedure in paragraph (c) of this section when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (d) of this section when emissions are controlled by an oxidizer.

(10) Operate a capture system and control device and limit the monthly organic HAP emissions to less than the allowable emissions as calculated in accordance with paragraph (e) of this section. If the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controllable work stations, then the owner or operator shall demonstrate compliance in accordance with the provisions of paragraph (f) of this section. Otherwise, the owner or operator shall demonstrate compliance following the procedure in paragraph (c) of this section when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (d) of this section when emissions are controlled by an oxidizer.

(c) To demonstrate compliance with the overall organic HAP control efficiency requirement in § 63.825(b)(7) or the organic HAP emissions limitation requirements in § 63.825(b)(8)–(10), each owner or operator using a solvent recovery device to control emissions shall show compliance by following the procedures in either paragraph (c)(1) or (c)(2) of this section:

(1) Perform a liquid-liquid material balance for each and every month as follows:

(i) Measure the mass of each ink, coating, varnish, adhesive, primer, solvent and other material applied on the press or group of presses controlled by a common solvent recovery device during the month.

(ii) If demonstrating compliance on the basis of organic HAP emission rate

based on solids applied, organic HAP emission rate based on material applied or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each ink, coating, varnish, adhesive, primer, solvent, and other material applied during the month following the procedure in § 63.827(b)(2).

(iii) Determine the volatile matter content of each ink, coating, varnish, adhesive, primer, solvent, and other material applied during the month following the procedure in § 63.827(c)(2).

(iv) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied or emission of less than the calculated allowable organic HAP, determine the solids content of each ink, coating, varnish, adhesive, primer, solvent, and other material applied during the month following the procedure in § 63.827(c)(2).

(v) Install, calibrate, maintain, and operate according to the manufacturer's specifications, a device that indicates the cumulative amount of volatile matter recovered by the solvent recovery device on a monthly basis. The device shall be initially certified by the manufacturer to be accurate to within ± 2.0 percent.

(vi) Measure the amount of volatile matter recovered for the month.

(vii) Calculate the volatile matter collection and recovery efficiency, R_v , using Equation 9.

$$R_v = 100 \frac{M_{vr}}{\sum_{i=1}^p M_i C_{vi} + \sum_{j=1}^q M_j} \quad \text{Eq 9}$$

(viii) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on material applied or emission of less than the calculated allowable organic HAP, calculate the organic HAP emitted during the month, H , using Equation 10.

$$H = \left[1 - \frac{R_v}{100} \right] \left[\sum_{i=1}^p \left(C_{hi} M_i + \sum_{j=1}^q C_{hij} M_{ij} \right) \right] \quad \text{Eq 10}$$

(ix) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, calculate the organic HAP emission rate based on solids applied, L, using Equation 11.

$$L = \frac{H}{\sum_{i=1}^p C_{si} M_i} \quad \text{Eq 11}$$

(x) If demonstrating compliance on the basis of organic HAP emission rate based on materials applied, calculate the organic HAP emission rate based on material applied, S, using Equation 12.

$$S = \frac{H}{\sum_{i=1}^p \left[M_i + \sum_{j=1}^q M_{ij} \right]} \quad \text{Eq 12}$$

(xi) The affected source is in compliance if

(A) The organic volatile matter collection and recovery efficiency, R_v , is 95 percent or greater, or

(B) The organic HAP emission rate based on solids applied, L, is 0.20 kg organic HAP per kg solids applied or less, or

(C) the organic HAP emission rate based on material applied, S, is 0.04 kg organic HAP per kg material applied or less, or

(D) the organic HAP emitted during the month, H, is less than the calculated allowable organic HAP, H_a , as determined using paragraph (e) of this section.

(2) Use continuous emission monitors, conduct an initial performance test of capture efficiency, and continuously monitor a site specific operating parameter to assure capture efficiency following the procedures in paragraphs (c)(2)(i) through (c)(2)(xi) of this section:

(i) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on materials applied, or emission of less than the calculated allowable organic HAP, measure the mass of each ink, coating, varnish, adhesive, primer, solvent, and other material applied on the press or

group of presses controlled by a common control device during the month.

(ii) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on material applied or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each ink, coating, varnish, adhesive, primer, solvent, and other material applied during the month following the procedure in § 63.827(b)(2).

(iii) Install continuous emission monitors to determine the total organic volatile matter mass flow rate (e.g., by determining the concentration of the vent gas in grams per cubic meter, and the volumetric flow rate in cubic meters per second, such that the total organic volatile matter mass flow rate in grams per second can be calculated and summed) at both the inlet to and the outlet from the control device, such that the percent control efficiency (E) of the control device can be calculated for each month.

(iv) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied or emission of less than the calculated allowable organic HAP, determine the solids content of each ink, coating, varnish, adhesive, primer, solvent, and other material applied during the month following the procedure in § 63.827(c)(2).

(v) Install, calibrate, operate and maintain the instrumentation necessary to measure continuously the site-specific operating parameter established in accordance with § 63.828(a)(5) whenever a product and packaging rotogravure or wide-web flexographic printing press is operated.

(vi) Determine the capture efficiency (F) in accordance with § 63.827(e)–(f).

(vii) Calculate the overall organic HAP control efficiency, (R), achieved for each month using Equation 13.

$$R = \frac{EF}{100} \quad \text{Eq 13}$$

(viii) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP

emission rate based on material applied or emission of less than the calculated allowable organic HAP, cal-

culate the organic HAP emitted during the month, H, for each month using Equation 14.

$$H = \left[1 - \left(\frac{E}{100} \frac{F}{100} \right) \right] \left[\sum_{i=1}^p C_{hi} M_i + \sum_{j=1}^q C_{hij} M_{ij} \right] \quad \text{Eq 14}$$

(ix) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, calculate the organic HAP emission rate based on solids applied, L, using Equation 15.

$$L = \frac{H}{\sum_{i=1}^p C_{si} M_i} \quad \text{Eq 15}$$

(x) If demonstrating compliance on the basis of organic HAP emission rate based on materials applied, calculate the organic HAP emission rate based on material applied, S, using Equation 16.

$$S = \frac{H}{\sum_{i=1}^p \left[M_i + \sum_{j=1}^q M_{ij} \right]} \quad \text{Eq 16}$$

(xi) The affected source is in compliance if the capture system operating parameter is operated at an average value greater than or less than (as appropriate) the operating parameter value established in accordance with § 63.828(a)(5) for each three hour period, and

(A) The organic volatile matter collection and recovery efficiency, R_v , is 95 percent or greater, or

(B) The organic HAP emission rate based on solids applied, L, is 0.20 kg organic HAP per kg solids applied or less, or

(C) The organic HAP emission rate based on material applied, S, is 0.04 kg organic HAP per kg material applied or less, or

(D) The organic HAP emitted during the month, H, is less than the calculated allowable organic HAP, H_a , as determined using paragraph (e) of this section.

(d) To demonstrate compliance with the overall organic HAP control efficiency requirement in § 63.825(b)(7) or the overall organic HAP emission rate limitation requirements in § 63.825(b)(8)–(10), each owner or operator using an oxidizer to control emissions shall show compliance by following the procedures in either paragraph (d)(1) or (d)(2) of this section:

(1) demonstrate initial compliance through performance tests of capture efficiency and control device efficiency and continuing compliance through continuous monitoring of capture system and control device operating parameters following the procedures in paragraph (d)(1)(i) through (d)(1)(xi) of this section:

(i) Determine the oxidizer destruction efficiency (E) using the procedure in § 63.827(d).

(ii) Determine the capture system capture efficiency (F) in accordance with § 63.827(e)–(f).

(iii) Calculate the overall organic HAP control efficiency, (R), achieved using Equation 13.

(iv) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on materials applied or emission of less than the calculated allowable organic HAP, measure the mass of each ink, coating, varnish, adhesive, primer, solvent, and other material applied on the press or group of presses controlled by a common solvent recovery device during the month.

(v) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on material applied or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each

ink, coating, varnish, adhesive, primer, solvent, and other material applied during the month following the procedure in § 63.827(b)(2).

(vi) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied or emission of less than the calculated allowable organic HAP, determine the solids content of each ink, coating, varnish, adhesive, primer, solvent, and other material applied during the month following the procedure in § 63.827(c)(2).

(vii) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on material applied or emission of less than the calculated allowable organic HAP, calculate the organic HAP emitted during the month, H , for each month using Equation 14.

(viii) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, calculate the organic HAP emission rate based on solids applied, L , for each month using Equation 15.

(ix) If demonstrating compliance on the basis of organic HAP emission rate based on materials applied, calculate the organic HAP emission rate based on material applied, S , using Equation 16.

(x) Install, calibrate, operate and maintain the instrumentation necessary to measure continuously the site-specific operating parameters established in accordance with § 63.828(a)(4)–(5) whenever a product and packaging rotogravure or wide-web flexographic press is operating.

(xi) The affected source is in compliance, if the oxidizer is operated such that the average operating parameter value is greater than the operating parameter value established in accordance with § 63.828(a)(4) for each three-hour period, and the capture system operating parameter is operated at an average value greater than or less than (as appropriate) the operating parameter value established in accordance with § 63.828(a)(5) for each three hour period, and

(A) The overall organic HAP control efficiency, R , is 95 percent or greater, or

(B) The organic HAP emission rate based on solids applied, L , is 0.20 kg organic HAP per kg solids applied or less, or

(C) The organic HAP emission rate based on material applied, S , is 0.04 kg organic HAP per kg material applied or less, or

(D) The organic HAP emitted during the month, H , is less than the calculated allowable organic HAP, H_a , as determined using paragraph (e) of this section.

(2) Use continuous emission monitors, conduct an initial performance test of capture efficiency, and continuously monitor a site specific operating parameter to assure capture efficiency. Compliance shall be demonstrated in accordance with the requirements of paragraph (c)(2) of this section.

(e) Owners or operators may calculate the monthly allowable HAP emissions, H_a , for demonstrating compliance in accordance with paragraph (b)(6), (c)(1)(xi)(D), (c)(2)(xi)(D), or (d)(1)(xi)(D) of this section as follows:

(1) Determine the as-purchased mass of each ink, coating, varnish, adhesive, primer, and other solids-containing material applied each month, M_i .

(2) Determine the as-purchased solids content of each ink, coating, varnish, adhesive, primer, and other solids-containing material applied each month, in accordance with § 63.827(c)(2), C_{si} .

(3) Determine the as-purchased mass fraction of each ink, coating, varnish, adhesive, primer, and other solids-containing material which was applied at 20 weight-percent or greater solids content, on an as-applied basis, G_i .

(4) Determine the total mass of each solvent, diluent, thinner, or reducer added to materials which were applied at less than 20 weight-percent solids content, on an as-applied basis, each month, M_{Lj} .

(5) Calculate the monthly allowable HAP emissions, H_a , using Equation 17.

$$H_a = 0.20 \left[\sum_{i=1}^p M_i G_i C_{si} \right] + 0.04 \left[\sum_{i=1}^p M_i (1 - G_i) + \sum_{j=1}^q M_{Lj} \right] \quad \text{Eq 17}$$

(f) Owners or operators of product and packaging rotogravure or wide-web flexographic printing presses shall demonstrate compliance according to the procedures in paragraphs (f)(1) through (f)(7) of this section if the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controllable work stations.

(1) The owner or operator of each solvent recovery system used to control one or more product and packaging rotogravure or wide-web flexographic presses for which the owner or operator chooses to comply by means of a liquid-liquid mass balance shall determine the organic HAP emissions for those presses controlled by that solvent recovery system either

(i) in accordance with paragraphs (c)(1)(i)–(iii) and (c)(1)(v)–(viii) of this section if the presses controlled by that solvent recovery system have only always-controlled work stations, or

(ii) in accordance with paragraphs (c)(1)(ii)–(iii), (c)(1)(v)–(vi), and (g) of this section if the presses controlled by that solvent recovery system have one or more never-controlled or intermittently-controllable work stations.

(2) The owner or operator of each solvent recovery system used to control one or more product and packaging rotogravure or wide-web flexographic presses, for which the owner or operator chooses to comply by means of an initial test of capture efficiency, continuous emission monitoring of the control device, and continuous monitoring of a capture system operating parameter, shall

(i) For each capture system delivering emissions to that solvent recovery system, monitor an operating parameter established in accordance with §63.828(a)(5) to assure capture system efficiency, and

(ii) Determine the organic HAP emissions for those presses served by each

capture system delivering emissions to that solvent recovery system either

(A) In accordance with paragraphs (c)(2)(i)–(iii) and (c)(2)(v)–(viii) of this section if the presses served by that capture system have only always-controlled work stations, or

(B) In accordance with paragraphs (c)(2)(ii)–(iii), (c)(2)(v)–(vii), and (g) of this section if the presses served by that capture system have one or more never-controlled or intermittently-controllable work stations.

(3) The owner or operator of each oxidizer used to control emissions from one or more product and packaging rotogravure or wide-web flexographic presses choosing to demonstrate compliance through performance tests of capture efficiency and control device efficiency and continuing compliance through continuous monitoring of capture system and control device operating parameters, shall

(i) Monitor an operating parameter established in accordance with §63.828(a)(4) to assure control device efficiency, and

(ii) For each capture system delivering emissions to that oxidizer, monitor an operating parameter established in accordance with §63.828(a)(5) to assure capture efficiency, and

(iii) Determine the organic HAP emissions for those presses served by each capture system delivering emissions to that oxidizer either

(A) In accordance with paragraphs (d)(1)(i)–(v) and (d)(1)(vii) of this section if the presses served by that capture system have only always-controlled work stations, or

(B) In accordance with paragraphs (d)(1)(i)–(iii), (d)(1)(v), and (g) of this section if the presses served by that capture system have one or more never-controlled or intermittently-controllable work stations.

(4) The owner or operator of each oxidizer used to control emissions from one or more product and packaging rotogravure or wide-web flexographic

presses choosing to demonstrate compliance through an initial capture efficiency test, continuous emission monitoring of the control device and continuous monitoring of a capture system operating parameter, shall

(i) For each capture system delivering emissions to that oxidizer, monitor an operating parameter established in accordance with § 63.828(a)(5) to assure capture efficiency, and

(ii) Determine the organic HAP emissions for those presses served by each capture system delivering emissions to that oxidizer either

(A) In accordance with paragraphs (c)(2)(i)–(iii) and (c)(2)(v)–(viii) of this section if the presses served by that capture system have only always-controlled work stations, or

(B) In accordance with paragraphs (c)(2)(ii)–(iii), (c)(2)(v)–(vii), and (g) of this section if the presses served by that capture system have one or more never-controlled or intermittently-controllable work stations.

(5) The owner or operator of one or more uncontrolled product and packaging rotogravure or wide-web flexographic printing presses shall determine the organic HAP applied on those presses using Equation 8. The organic HAP emitted from an uncontrolled press is equal to the organic HAP applied on that press.

(6) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied or emission of less than the calculated allowable organic HAP, the owner or operator shall determine the solids content of each ink, coating, varnish, adhesive, primer, solvent and other material applied during the month following the procedure in § 63.827(c)(2).

(7) The owner or operator shall determine the organic HAP emissions for the affected source for the month by summing all organic HAP emissions calculated according to paragraphs (f)(1), (f)(2)(ii), (f)(3)(iii), (f)(4)(ii), and (f)(5) of this section. The affected source is in compliance for the month, if all operating parameters required to be monitored under paragraphs (f)(2)–(4) of this section were maintained at the appropriate values, and

(i) The total mass of organic HAP emitted by the affected source was not

more than four percent of the total mass of inks, coatings, varnishes, adhesives, primers, solvents, diluents, reducers, thinners and other materials applied by the affected source, or

(ii) The total mass of organic HAP emitted by the affected source was not more than 20 percent of the total mass of solids applied by the affected source, or

(iii) The total mass of organic HAP emitted by the affected source was not more than the equivalent allowable organic HAP emissions for the affected source, H_a , calculated in accordance with paragraph (e) of this section, or

(iv) The total mass of organic HAP emitted by the affected source was not more than five percent of the total mass of organic HAP applied by the affected source. The total mass of organic HAP applied by the affected source in the month shall be determined by the owner or operator using Equation 8.

(g) Owners or operators determining organic HAP emissions from a press or group of presses having one or more never-controlled or intermittently-controllable work stations and using the procedures specified in paragraphs (f)(1)(ii), (f)(2)(ii)(B), (f)(3)(iii)(B), or (f)(4)(ii)(B) of this section shall for that press or group of presses:

(1) Determine the sum of the mass of all inks, coatings, varnishes, adhesives, primers, and other solids-containing materials which are applied on intermittently-controllable work stations in bypass mode and the mass of all inks, coatings, varnishes, adhesives, primers, and other solids-containing materials which are applied on never-controlled work stations during the month, M_{Bi} .

(2) Determine the sum of the mass of all solvents, reducers, thinners, and other diluents which are applied on intermittently-controllable work stations in bypass mode and the mass of all solvents, reducers, thinners, and other diluents which are applied on never-controlled work stations during the month, M_{Bj} .

(3) Determine the sum of the mass of all inks, coatings, varnishes, adhesives, primers, and other solids-containing materials which are applied on intermittently-controllable work stations

in controlled mode and the mass of all inks, coatings, varnishes, adhesives, primers, and other solids-containing materials which are applied on always-controlled work stations during the month, M_{Bj} .

(4) Determine the sum of the mass of all solvents, reducers, thinners, and other diluents which are applied on intermittently-controllable work stations in controlled mode and the mass

of all solvents, reducers, thinners, and other diluents which are applied on always-controlled work stations during the month, M_{Cj} .

(5) For each press or group of presses for which the owner or operator uses the provisions of paragraph (f)(1)(ii) of this section, the owner or operator shall calculate the organic HAP emitted during the month using Equation 18.

$$H = \left[\sum_{i=1}^p M_{Ci} C_{hi} + \sum_{j=1}^q M_{Cj} C_{hj} \right] \left[1 - \frac{M_{vr}}{\sum_{i=1}^p M_{Ci} C_{vi} + \sum_{j=1}^q M_{Cj}} \right] + \left[\sum_{i=1}^p M_{Bi} C_{hi} + \sum_{j=1}^q M_{Bj} C_{hj} \right] \quad \text{Eq 18}$$

(6) For each press or group of presses for which the owner or operator uses the provisions of paragraphs (f)(2)(ii)(B), (f)(3)(iii)(B), or (f)(4)(ii)(B)

of this section, the owner or operator shall calculate the organic HAP emitted during the month using Equation (19).

$$H = \left[\sum_{i=1}^p M_{Ci} C_{hi} + \sum_{j=1}^q M_{Cj} C_{hj} \right] \left[1 - \left(\frac{E}{100} - \frac{F}{100} \right) \right] + \left[\sum_{i=1}^p M_{Bi} C_{hi} + \sum_{j=1}^q M_{Bj} C_{hj} \right] \quad \text{Eq 19}$$

(h) If the affected source operates more than one capture system or more than one control device, and has no never-controlled work stations and no intermittently-controllable work stations, then the affected source is in compliance with the 95 percent overall organic HAP control efficiency requirement for the month if for each press or group of presses controlled by a common control device:

(1) The volatile matter collection and recovery efficiency, R_v , as determined by paragraphs (c)(1)(i), (c)(1)(iii), and (c)(1)(v)-(vii) of this section is equal to or greater than 95 percent, or

(2) The overall organic HAP control efficiency as determined by paragraphs (c)(2)(iii) and (c)(2)(v)-(vii) of this section for each press or group of presses served by that control device and a common capture system is equal to or greater than 95 percent and the average capture system operating parameter

value for each capture system serving that control device is greater than or less than (as appropriate) the operating parameter value established for that capture system in accordance with § 63.828(a)(5) for each three hour period, or

(3) The overall organic HAP control efficiency as determined by paragraphs (d)(1)(i)-(iii) and (d)(1)(x) of this section for each press or group of presses served by that control device and a common capture system is equal to or greater than 95 percent, the oxidizer is operated such that the average operating parameter value is greater than the operating parameter value established in accordance with § 63.828(a)(4) for each three hour period, and the average capture system operating parameter value for each capture system serving that control device is greater than or less than (as appropriate) the operating parameter value established for that

capture system in accordance with § 63.828(a)(5) for each three hour period.

§ 63.826 Compliance dates.

(a) The compliance date for an owner or operator of an existing affected source subject to the provisions of this subpart is May 30, 1999.

(b) The compliance date for an owner or operator of a new affected source subject to the provisions of this subpart is immediately upon start-up of the affected source, or May 30, 1996, whichever is later.

(c) Affected sources which have undergone reconstruction are subject to the requirements for new affected sources. The costs associated with the purchase and installation of air pollution control equipment are not considered in determining whether the affected source has been reconstructed. Additionally, the costs of retrofitting and replacement of equipment that is installed specifically to comply with this subpart are not considered reconstruction costs.

§ 63.827 Performance test methods.

(a) An owner or operator using a control device to comply with the requirements of §§ 63.824–63.825 is not required to conduct an initial performance test to demonstrate compliance if one or more of the criteria in paragraphs (a)(1) through (a)(3) of this section are met:

(1) A control device that is in operation prior to May 30, 1996, does not need to be tested if

(i) It is equipped with continuous emission monitors for determining inlet and outlet total organic volatile matter concentration, and capture efficiency has been determined in accordance with the requirements of this subpart, such that an overall HAP control efficiency can be calculated, and

(ii) The continuous emission monitors are used to demonstrate continuous compliance in accordance with § 63.828, or

(2) The owner or operator has met the requirements of either § 63.7(e)(2)(iv) or § 63.7(h), or

(3) The control device is a solvent recovery system and the owner or operator chooses to comply by means of a

monthly liquid-liquid material balance.

(b) Determination of the organic HAP content of inks, coatings, varnishes, adhesives, primers, solvents, thinners, reducers, diluents, and other materials for the purpose of meeting the requirements of § 63.824 shall be conducted according to paragraph (b)(1) of this section. Determination of the organic HAP content of inks, coatings, varnishes, adhesives, primers, solvents, thinners, reducers, diluents, and other materials for the purpose of meeting the requirements of § 63.825 shall be conducted according to paragraph (b)(2) of this section.

(1) Each owner or operator of a publication rotogravure facility shall determine the organic HAP weight-fraction of each ink, coating, varnish, adhesive, primer, solvent, and other material used in a publication rotogravure affected source by following one of the procedures in paragraphs (b)(1)(i) through (b)(1)(iii) of this section:

(i) The owner or operator may test the material in accordance with Method 311 of appendix A of this part 63. The Method 311 determination may be performed by the manufacturer of the material and the results provided to the owner or operator. If these values cannot be determined using Method 311, the owner or operator shall submit an alternative technique for determining their values for approval by the Administrator. The recovery efficiency of the technique must be determined for all of the target organic HAP and a correction factor, if necessary, must be determined and applied.

(ii) The owner or operator may determine the volatile matter content of the material in accordance with § 63.827(c)(1) and use this value for the organic HAP content for all compliance purposes.

(iii) The owner or operator may, except as noted in paragraph (b)(1)(iv) of this section, rely on formulation data provided by the manufacturer of the material on a CPDS if

(A) The manufacturer has included in the organic HAP content determination all HAP present at a level greater than 0.1 percent in any raw material used, weighted by the mass fraction of

each raw material used in the material, and

(B) The manufacturer has determined the HAP content of each raw material present in the formulation by Method 311 of appendix A of this part 63, or by an alternate method approved by the Administrator, or by reliance on a CPDS from a raw material supplier prepared in accordance with § 63.827(b)(1)(iii)(A).

(iv) In the event of any inconsistency between the Method 311 of appendix A of this part 63 test data and formulation data, that is, if the Method 311 test value is higher, the Method 311 test data shall govern, unless after consultation, an owner or operator demonstrates to the satisfaction of the enforcement authority that the formulation data are correct.

(2) Each owner or operator of a product and packaging rotogravure or wide-web flexographic printing facility shall determine the organic HAP weight fraction of each ink, coating, varnish, adhesive, primer, solvent, thinner, reducer, diluent, and other material applied by following one of the procedures in paragraphs (b)(2)(i) through (b)(2)(iii) of this section:

(i) The owner or operator may test the material in accordance with Method 311 of appendix A of this part 63. The Method 311 determination may be performed by the manufacturer of the material and the results provided to the owner or operator. If these values cannot be determined using Method 311, the owner or operator shall submit an alternative technique for determining their values for approval by the Administrator. The recovery efficiency of the technique must be determined for all of the target organic HAP and a correction factor, if necessary, must be determined and applied.

(ii) The owner or operator may determine the volatile matter content of the material in accordance with § 63.827(c)(2) and use this value for the organic HAP content for all compliance purposes.

(iii) The owner or operator may, except as noted in paragraph (b)(2)(iv) of this section, rely on formulation data provided by the manufacturer of the material on a CPDS if

(A) The manufacturer has included in the organic HAP content determination, all organic HAP present at a level greater than 0.1 percent in any raw material used, weighted by the mass fraction of each raw material used in the material, and

(B) The manufacturer has determined the organic HAP content of each raw material present in the formulation by Method 311 of appendix A of this part 63, or, by an alternate method approved by the Administrator, or, by reliance on a CPDS from a raw material supplier prepared in accordance with § 63.827(b)(2)(iii)(A).

(iv) In the event of any inconsistency between the Method 311 of appendix A of this part 63 test data and a facility's formulation data, that is, if the Method 311 test value is higher, the Method 311 test data shall govern, unless after consultation, an owner or operator demonstrates to the satisfaction of the enforcement authority that the formulation data are correct.

(c) Determination by the owner or operator of the volatile matter content of inks, coatings, varnishes, adhesives, primers, solvents, reducers, thinners, diluents, and other materials used for the purpose of meeting the requirements of § 63.824 shall be conducted according to paragraph (c)(1) of this section. Determination by the owner or operator of the volatile matter and solids content of inks, coatings, varnishes, adhesives, primers, solvents, reducers, thinners, diluents, and other materials applied for the purpose of meeting the requirements of § 63.825 shall be conducted according to paragraph (c)(2) of this section.

(1) Each owner or operator of a publication rotogravure facility shall determine the volatile matter weight-fraction of each ink, coating, varnish, adhesive, primer, solvent, reducer, thinner, diluent, and other material used using Method 24A of 40 CFR part 60, appendix A. The Method 24A determination may be performed by the manufacturer of the material and the results provided to the owner or operator. If these values cannot be determined using Method 24A, the owner or operator shall submit an alternative technique for determining their values for approval by the Administrator. The

owner or operator may rely on formulation data, subject to the provisions of paragraph (c)(3) of this section.

(2) Each owner or operator of a product and packaging rotogravure or wide-web flexographic printing facility shall determine the volatile matter and solids weight-fraction of each ink, coating, varnish, adhesive, primer, solvent, reducer, thinner, diluent, and other material applied using Method 24 of 40 CFR part 60, appendix A. The Method 24 determination may be performed by the manufacturer of the material and the results provided to the owner or operator. If these values cannot be determined using Method 24, the owner or operator shall submit an alternative technique for determining their values for approval by the Administrator. The owner or operator may rely on formulation data, subject to the provisions of paragraph (c)(3) of this section.

(3) Owners or operators may determine the volatile matter content of materials based on formulation data, and may rely on volatile matter content data provided by material suppliers. In the event of any inconsistency between the formulation data and the results of Test Methods 24 or 24A of 40 CFR part 60, appendix A, the applicable test method shall govern, unless after consultation, the owner or operator can demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(d) A performance test of a control device to determine destruction efficiency for the purpose of meeting the requirements of §§ 63.824–63.825 shall be conducted by the owner or operator in accordance with the following:

(1) An initial performance test to establish the destruction efficiency of an oxidizer and the associated combustion zone temperature for a thermal oxidizer and the associated catalyst bed inlet temperature for a catalytic oxidizer shall be conducted and the data reduced in accordance with the following reference methods and procedures:

(i) Method 1 or 1A of 40 CFR part 60, appendix A is used for sample and velocity traverses to determine sampling locations.

(ii) Method 2, 2A, 2C, or 2D of 40 CFR part 60, appendix A is used to determine gas volumetric flow rate.

(iii) Method 3 of 40 CFR part 60, appendix A is used for gas analysis to determine dry molecular weight.

(iv) Method 4 of 40 CFR part 60, appendix A is used to determine stack gas moisture.

(v) Methods 2, 2A, 3, and 4 of 40 CFR part 60, appendix A shall be performed, as applicable, at least twice during each test period.

(vi) Method 25 of 40 CFR part 60, Appendix A, shall be used to determine organic volatile matter concentration, except as provided in paragraphs (d)(1)(vi)(A)–(C) of this section. The owner or operator shall submit notice of the intended test method to the Administrator for approval along with notice of the performance test required under § 63.7(c). The owner or operator may use Method 25A of 40 CFR part 60, appendix A, if

(A) An exhaust gas organic volatile matter concentration of 50 parts per million by volume (ppmv) or less is required to comply with the standards of §§ 63.824–63.825, or

(B) The organic volatile matter concentration at the inlet to the control system and the required level of control are such to result in exhaust gas organic volatile matter concentrations of 50 ppmv or less, or

(C) Because of the high efficiency of the control device, the anticipated organic volatile matter concentration at the control device exhaust is 50 ppmv or less, regardless of inlet concentration.

(vii) Each performance test shall consist of three separate runs; each run conducted for at least one hour under the conditions that exist when the affected source is operating under normal operating conditions. For the purpose of determining organic volatile matter concentrations and mass flow rates, the average of results of all runs shall apply.

(viii) Organic volatile matter mass flow rates shall be determined using Equation 20:

$$M_f = Q_{sd} \left[\sum_{i=1}^n C_i MW_i \right] [0.0416] [10^{-6}] \quad \text{Eq 20}$$

(ix) Emission control device efficiency shall be determined using Equation 21:

$$E = \frac{M_{fi} - M_{fo}}{M_{fi}} \quad \text{Eq 21}$$

(2) The owner or operator shall record such process information as may be necessary to determine the conditions of the performance test. Operations during periods of start-up, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test.

(3) For the purpose of determining the value of the oxidizer operating parameter that will demonstrate continuing compliance, the time-weighted average of the values recorded during the performance test shall be computed. For an oxidizer other than catalytic oxidizer, the owner or operator shall establish as the operating parameter the minimum combustion temperature. For a catalytic oxidizer, the owner or operator shall establish as the operating parameter the minimum gas temperature upstream of the catalyst bed. These minimum temperatures are the operating parameter values that demonstrate continuing compliance with the requirements of §§ 63.824–63.825.

(e) A performance test to determine the capture efficiency of each capture system venting organic emissions to a control device for the purpose of meeting the requirements of §§ 63.824(b)(1)(ii), 63.824(b)(2), 63.825(c)(2), 63.825(d)(1)–(2), 63.825(f)(2)–(4), or 63.825(h)(2)–(3) shall be conducted by the owner or operator in accordance with the following:

(1) For permanent total enclosures, capture efficiency shall be assumed as 100 percent. Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure as found in appendix B to § 52.741 of part 52 of this chapter shall be used to confirm that an enclosure meets the requirements for permanent total enclosure.

(2) For temporary total enclosures, the capture efficiency shall be determined according to the protocol specified in § 52.741(a)(4)(iii)(B) of part 52 of this chapter. The owner or operator may exclude never-controlled work stations from such capture efficiency determinations.

(f) As an alternative to the procedures specified in § 63.827(e) an owner or operator required to conduct a capture efficiency test may use any capture efficiency protocol and test methods that satisfy the criteria of either the Data Quality Objective (DQO) or the Lower Confidence Limit (LCL) approach as described in Appendix A of this subpart. The owner or operator may exclude never-controlled work stations from such capture efficiency determinations.

§ 63.828 Monitoring requirements.

(a) Following the date on which the initial performance test of a control device is completed, to demonstrate continuing compliance with the standard, the owner or operator shall monitor and inspect each control device required to comply with §§ 63.824–63.825 to ensure proper operation and maintenance by implementing the applicable requirements in paragraph (a)(1) through (a)(5) of this section.

(1) Owners or operators of product and packaging rotogravure or wide-web flexographic presses with intermittently-controllable work stations shall follow one of the procedures in paragraphs (a)(1)(i) through (a)(1)(iv) of this section for each dryer associated with such a work station:

(i) Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that provides a record indicating whether the exhaust stream from the dryer was directed to the control device or was diverted from the control device. The time and flow control position must be recorded at least once per hour, as well as every time

the flow direction is changed. The flow control position indicator shall be installed at the entrance to any bypass line that could divert the exhaust stream away from the control device to the atmosphere.

(ii) Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration; a visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve or damper is maintained in the closed position and the exhaust stream is not diverted through the bypass line.

(iii) Ensure that any bypass line valve or damper is in the closed position through continuous monitoring of valve position. The monitoring system shall be inspected at least once every month to ensure that it is functioning properly.

(iv) Use an automatic shutdown system in which the press is stopped when flow is diverted away from the control device to any bypass line. The automatic system shall be inspected at least once every month to ensure that it is functioning properly.

(2) Compliance monitoring shall be subject to the provisions of paragraphs (a)(2)(i) and (a)(2)(ii) of this section, as applicable.

(i) All continuous emission monitors shall comply with performance specifications (PS) 8 or 9 of 40 CFR part 60, appendix B, as appropriate. The requirements of appendix F of 40 CFR part 60 shall also be followed. In conducting the quarterly audits required by appendix F, owners or operators must challenge the monitors with compounds representative of the gaseous emission stream being controlled.

(ii) All temperature monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturers specifications. The calibration of the chart recorder, data logger, or temperature indicator shall be verified every three months; or the chart recorder, data logger, or temperature indicator shall be replaced. The replacement shall be done either if the owner or operator chooses not to perform the calibration, or if the equipment cannot be calibrated properly.

(3) An owner or operator complying with §§63.824–63.825 through continuous emission monitoring of a control device shall install, calibrate, operate, and maintain continuous emission monitors to measure the total organic volatile matter concentration at both the control device inlet and the outlet.

(4) An owner or operator complying with the requirements of §§63.824–63.825 through the use of an oxidizer and demonstrating continuous compliance through monitoring of an oxidizer operating parameter shall:

(i) For an oxidizer other than a catalytic oxidizer, install, calibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of ± 1 percent of the temperature being monitored in $^{\circ}\text{C}$ or ± 1 $^{\circ}\text{C}$, whichever is greater. The thermocouple or temperature sensor shall be installed in the combustion chamber at a location in the combustion zone.

(ii) For a catalytic oxidizer, install, calibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature with an accuracy of ± 1 percent of the temperature being monitored in $^{\circ}\text{C}$ or ± 1 $^{\circ}\text{C}$, whichever is greater. The thermocouple or temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet.

(5) An owner or operator complying with the requirements of §§63.824–63.825 through the use of a control device and demonstrating continuous compliance by monitoring an operating parameter to ensure that the capture efficiency measured during the initial compliance test is maintained, shall:

(i) Submit to the Administrator with the compliance status report required by §63.9(h) of the General Provisions, a plan that

(A) Identifies the operating parameter to be monitored to ensure that the capture efficiency measured during the initial compliance test is maintained,

(B) Discusses why this parameter is appropriate for demonstrating ongoing compliance, and

(C) Identifies the specific monitoring procedures;

(ii) Set the operating parameter value, or range of values, that demonstrate compliance with §§63.824–63.825, and

(iii) Conduct monitoring in accordance with the plan submitted to the Administrator unless comments received from the Administrator require an alternate monitoring scheme.

(b) Any excursion from the required operating parameters which are monitored in accordance with paragraphs (a)(4) and (a)(5) of this section, unless otherwise excused, shall be considered a violation of the emission standard.

§ 63.829 Recordkeeping requirements.

(a) The recordkeeping provisions of 40 CFR part 63 subpart A of this part that apply and those that do not apply to owners and operators of affected sources subject to this subpart are listed in Table 1 of this subpart.

(b) Each owner or operator of an affected source subject to this subpart shall maintain the records specified in paragraphs (b)(1) through (b)(3) of this section on a monthly basis in accordance with the requirements of § 63.10(b)(1) of this part:

(1) Records specified in § 63.10(b)(2) of this part, of all measurements needed to demonstrate compliance with this standard, such as continuous emission monitor data, control device and capture system operating parameter data, material usage, HAP usage, volatile matter usage, and solids usage that support data that the source is required to report.

(2) Records specified in § 63.10(b)(3) of this part for each applicability determination performed by the owner or operator in accordance with the requirements of § 63.820(a) of this subpart, and

(3) Records specified in § 63.10(c) of this part for each continuous monitoring system operated by the owner or operator in accordance with the requirements of § 63.828(a) of this subpart.

(c) Each owner or operator of an affected source subject to this subpart shall maintain records of all liquid-liquid material balances performed in accordance with the requirements of §§63.824–63.825 of this subpart. The records shall be maintained in accord-

ance with the requirements of § 63.10(b) of this part.

(d) The owner or operator of each facility which commits to the criteria of § 63.820(a)(2) shall maintain records of all required measurements and calculations needed to demonstrate compliance with these criteria, including the mass of all HAP containing materials used and the mass fraction of HAP present in each HAP containing material used, on a monthly basis.

(e) The owner or operator of each facility which meets the limits and criteria of § 63.821(b)(1) shall maintain records as required in paragraph (e)(1) of this section. The owner or operator of each facility which meets the limits and criteria of § 63.821(b)(2) shall maintain records as required in paragraph (e)(2) of this section. Owners or operators shall maintain these records for five years, and upon request, submit them to the Administrator.

(1) For each facility which meets the criteria of § 63.821(b)(1), the owner or operator shall maintain records of the total volume of each material applied on product and packaging rotogravure or wide-web flexographic printing presses during each month.

(2) For each facility which meets the criteria of § 63.821(b)(2), the owner or operator shall maintain records of the total volume and organic HAP content of each material applied on product and packaging rotogravure or wide-web flexographic printing presses during each month.

(f) The owner or operator choosing to exclude from an affected source, a product and packaging rotogravure or wide-web flexographic press which meets the limits and criteria of § 63.821(a)(2)(ii)(A) shall maintain the records specified in paragraphs (f)(1) and (f)(2) of this section for five years and submit them to the Administrator upon request:

(1) The total mass of each material applied each month on the press, including all inboard and outboard stations, and

(2) The total mass of each material applied each month on the press by product and packaging rotogravure or wide-web flexographic printing operations.

§ 63.830 Reporting requirements.

(a) The reporting provisions of 40 CFR part 63 subpart A of this part that apply and those that do not apply to owners and operators of affected sources subject to this subpart are listed in Table 1 of this subpart.

(b) Each owner or operator of an affected source subject to this subpart shall submit the reports specified in paragraphs (b)(1) through (b)(6) of this section to the Administrator:

(1) An initial notification required in § 63.9(b).

(i) Initial notifications for existing sources shall be submitted no later than one year before the compliance date specified in § 63.826(a).

(ii) Initial notifications for new and reconstructed sources shall be submitted as required by § 63.9(b).

(iii) For the purpose of this subpart, a Title V or part 70 permit application may be used in lieu of the initial notification required under § 63.9(b), provided the same information is contained in the permit application as required by § 63.9(b), and the State to which the permit application has been submitted has an approved operating permit program under part 70 of this chapter and has received delegation of authority from the EPA.

(iv) Permit applications shall be submitted by the same due dates as those specified for the initial notifications.

(2) A Notification of Performance Tests specified in § 63.7 and § 63.9(e) of this part. This notification, and the site-specific test plan required under § 63.7(c)(2) shall identify the operating parameter to be monitored to ensure that the capture efficiency measured during the performance test is maintained. The operating parameter identified in the site-specific test plan shall be considered to be approved unless explicitly disapproved, or unless comments received from the Administrator require monitoring of an alternate parameter.

(3) A Notification of Compliance Status specified in § 63.9(h) of this part.

(4) Performance test reports specified in § 63.10(d)(2) of this part.

(5) Start-up, shutdown, and malfunction reports specified in § 63.10(d)(5) of this part, except that the provisions in subpart A pertaining to start-ups, shut-

downs, and malfunctions do not apply unless a control device is used to comply with this subpart.

(i) If actions taken by an owner or operator during a start-up, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are not completely consistent with the procedures specified in the source's start-up, shutdown, and malfunction plan specified in § 63.6(e)(3) of this part, the owner or operator shall state such information in the report. The start-up, shutdown, or malfunction report shall consist of a letter containing the name, title, and signature of the responsible official who is certifying its accuracy, that shall be submitted to the Administrator.

(ii) Separate start-up, shutdown, or malfunction reports are not required if the information is included in the report specified in paragraph (b)(6) of this section.

(6) A summary report specified in § 63.10(e)(3) of this part shall be submitted on a semi-annual basis (i.e., once every six-month period). In addition to a report of operating parameter exceedances as required by § 63.10(e)(3)(i), the summary report shall include, as applicable:

(i) Exceedances of the standards in §§ 63.824–63.825.

(ii) Exceedances of either of the criteria of § 63.820(a)(2).

(iii) Exceedances of the criterion of § 63.821(b)(1) and the criterion of § 63.821(b)(2) in the same month.

(iv) Exceedances of the criterion of § 63.821(a)(2)(ii)(A).

§ 63.831 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under 40 CFR part 63 subpart E of this part, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authority which will not be delegated to States: § 63.827(b), approval of alternate test method for organic HAP content determination; § 63.827(c), approval of alternate test method for volatile matter determination.

§§ 63.832–63.839 [Reserved]

Environmental Protection Agency

Pt. 63, Subpt. KK, Table 1

TABLE 1 TO SUBPART KK.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART KK

General provisions reference	Applicable to subpart KK	Comment
§ 63.1(a)(1)–(a)(4)	Yes.	
§ 63.1(a)(5)	No	Section reserved.
§ 63.1(a)(6)–(a)(8)	No.	
§ 63.1(a)(9)	No	Section reserved.
§ 63.1(a)(10)–(a)(14)	Yes.	
§ 63.1(b)(1)	No	Subpart KK specifies applicability.
§ 63.1(b)(2)–(b)(3)	Yes.	
§ 63.1(c)(1)	Yes.	
§ 63.1(c)(2)	No	Area sources are not subject to subpart KK.
§ 63.1(c)(3)	No	Section reserved.
§ 63.1(c)(4)	Yes.	
§ 63.1(c)(5)	No.	
§ 63.1(d)	No	Section reserved.
§ 63.1(e)	Yes.	
§ 63.2	Yes	Additional definitions in subpart KK.
§ 63.3(a)–(c)	Yes.	
§ 63.4(a)(1)–(a)(3)	Yes.	
§ 63.4(a)(4)	No	Section reserved.
§ 63.4(a)(5)	Yes.	
§ 63.4(b)–(c)	Yes.	
§ 63.5(a)(1)–(a)(2)	Yes.	
§ 63.5(b)(1)	Yes.	
§ 63.5(b)(2)	No	Section reserved.
§ 63.5(b)(3)–(b)(6)	Yes.	
§ 63.5(c)	No	Section reserved.
§ 63.5(d)	Yes.	
§ 63.5(e)	Yes.	
§ 63.5(f)	Yes.	
§ 63.6(a)	Yes.	
§ 63.6(b)(1)–(b)(5)	Yes.	
§ 63.6(b)(6)	No	Section reserved.
§ 63.6(b)(7)	Yes.	
§ 63.6(c)(1)–(c)(2)	Yes.	
§ 63.6(c)(3)–(c)(4)	No	Sections reserved.
§ 63.6(c)(5)	Yes.	
§ 63.6(d)	No	Section reserved.
§ 63.6(e)	Yes	Provisions pertaining to start-ups, shutdowns, malfunctions, and CMS do not apply unless an add-on control system is used.
§ 63.6(f)	Yes.	
§ 63.6(g)	Yes.	
§ 63.6(h)	No	Subpart KK does not require COMS.
§ 63.6(i)(1)–(i)(14)	Yes.	
§ 63.6(i)(15)	No	Section reserved.
§ 63.6(i)(16)	Yes.	
§ 63.6(j)	Yes.	
§ 63.7	Yes.	
§ 63.8(a)(1)–(a)(2)	Yes.	
§ 63.8(a)(3)	No	Section reserved.
§ 63.8(a)(4)	No	Subpart KK specifies the use of solvent recovery devices or oxidizers.
§ 63.8(b)	Yes.	
§ 63.8(c)(1)–(3)	Yes.	
§ 63.8(c)(4)	No	Subpart KK specifies CMS sampling requirements.
§ 63.8(c)(5)	No	Subpart KK does not require COMS.
§ 63.8(c)(6)–(c)(8)	Yes	Provisions for COMS are not applicable.
§ 63.8(d)–(f)	Yes.	
§ 63.8(g)	No	Subpart KK specifies CMS data reduction requirements.
§ 63.9(a)	Yes.	
§ 63.9(b)(1)	Yes.	
§ 63.9(b)(2)	Yes	Initial notification submission date extended.
§ 63.9(b)(3)–(b)(5)	Yes.	
§ 63.9(c)–(e)	Yes.	
§ 63.9(f)	No	Subpart KK does not require opacity and visible emissions observations.
§ 63.9(g)	Yes	Provisions for COMS are not applicable.
§ 63.9(h)(1)–(h)(3)	Yes.	
§ 63.9(h)(4)	No	Section reserved.
§ 63.9(h)(5)–(h)(6)	Yes.	
§ 63.9(i)	Yes.	
§ 63.9(j)	Yes.	
§ 63.10(a)	Yes.	

TABLE 1 TO SUBPART KK.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART KK—Continued

General provisions reference	Applicable to subpart KK	Comment
§ 63.10(b)(1)–(b)(3)	Yes.	
§ 63.10(c)(1)	Yes.	
§ 63.10(c)(2)–(c)(4)	No	Sections reserved.
§ 63.10(c)(5)–(c)(8)	Yes.	
§ 63.10(c)(9)	No	Section reserved.
§ 63.10(c)(10)–(c)(15)	Yes.	
§ 63.10(d)(1)–(d)(2)	Yes.	
§ 63.10(d)(3)	No	Subpart KK does not require opacity and visible emissions observations.
§ 63.10(d)(4)–(d)(5)	Yes.	
§ 63.10(e)	Yes	Provisions for COMS are not applicable.
§ 63.10(f)	Yes.	
§ 63.11	No	Subpart KK specifies the use of solvent recovery devices or oxidizers.
§ 63.12	Yes.	
§ 63.13	Yes.	
§ 63.14	Yes.	
§ 63.15	Yes.	

APPENDIX A TO SUBPART KK TO PART 63—DATA QUALITY OBJECTIVE AND LOWER CONFIDENCE LIMIT APPROACHES FOR ALTERNATIVE CAPTURE EFFICIENCY PROTOCOLS AND TEST METHODS

1. Introduction

1.1 Alternative capture efficiency (CE) protocols and test methods that satisfy the criteria of either the data quality objective (DQO) approach or the lower confidence limit (LCL) approach are acceptable under § 63.827(f). The general criteria for alternative CE protocols and test methods to qualify under either the DQO or LCL approach are described in section 2. The DQO approach and criteria specific to the DQO approach are described in section 3. The LCL approach and criteria specific to the LCL approach are described in section 4. The recommended reporting for alternative CE protocols and test methods are presented in section 5. The recommended recordkeeping for alternative CE protocols and test methods are presented in section 6.

1.2 Although the Procedures L, G.1, G.2, F.1, and F.2 in § 52.741 of part 52 were developed for TTE and BE testing, the same procedures can also be used in an alternative CE protocol. For example, a traditional liquid/gas mass balance CE protocol could employ Procedure L to measure liquid VOC input and Procedure G.1 to measure captured VOC.

2. General Criteria for DQO and LCL Approaches

2.1 The following general criteria must be met for an alternative capture efficiency protocol and test methods to qualify under the DQO or LCL approach.

2.2 An alternative CE protocol must consist of at least three valid test runs. Each

test run must be at least 20 minutes long. No test run can be longer than 24 hours.

2.3 All test runs must be separate and independent. For example, liquid VOC input and output must be determined independently for each run. The final liquid VOC sample from one run cannot be the initial sample for another run. In addition, liquid input for an entire day cannot be apportioned among test runs based on production.

2.4 Composite liquid samples cannot be used to obtain an “average composition” for a test run. For example, separate initial and final coating samples must be taken and analyzed for each run; initial and final samples cannot be combined prior to analysis to derive an “average composition” for the test run.

2.5 All individual test runs that result in a CE of greater than 105 percent are invalid and must be discarded.

2.6 If the source can demonstrate to the regulatory agency that a test run should not be considered due to an identified testing or analysis error such as spillage of part of the sample during shipping or an upset or improper operating conditions that is not considered part of normal operation then the test result for that individual test run may be discarded. This limited exception allows sources to discard as “outliers” certain individual test runs without replacing them with a valid test run as long as the facility has at least three valid test runs to use when calculating its DQO or LCL. This exception is limited solely to test runs involving the types of errors identified above.

2.7 All valid test runs that are conducted must be included in the average CE determination. The individual test run CE results and average CE results cannot be truncated (i.e., 105 percent cannot be reported as 100+ percent) for purposes of meeting general or specific criteria for either the DQO or the

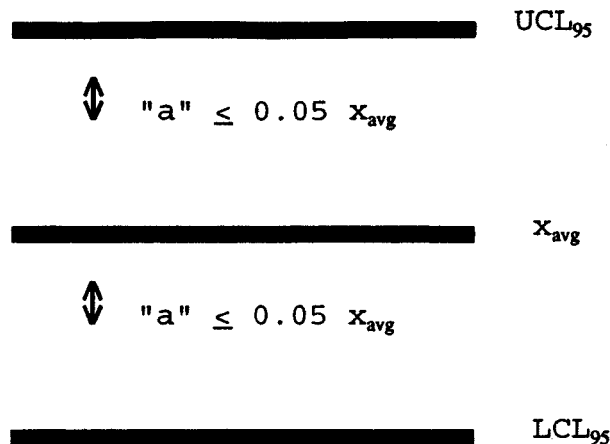
LCL. If the DQO is satisfied and the average CE is greater than 100, then 100 percent CE must be considered the result of the test.

2.8 Alternative test methods for measuring VOC concentration must include a three-point calibration of the gas analysis instrument in the expected concentration range.

3. Data Quality Objective Approach

3.1 The purpose of the DQO is to allow sources to use alternative CE protocols and test methods while ensuring reasonable pre-

cision consistent with pertinent requirements of the Clean Air Act. In addition to the general criteria described in section 2, the specific DQO criterion is that the width of the two-sided 95 percent confidence interval of the mean measured value must be less than or equal to 10 percent of the mean measured value (see Figure 1). This ensures that 95 percent of the time, when the DQO is met, the actual CE value will be ± 5 percent of the mean measured value (assuming that the test protocol is unbiased).



3.2 The DQO calculation is made as follows using Equations 1 and 2:

$$P = \frac{a}{x_{avg}} 100 \quad \text{Eq 1}$$

$$a = \frac{t_{0.975} s}{\sqrt{n}} \quad \text{Eq 2}$$

Where:

a=distance from the average measured CE value to the endpoints of the 95-percent

(two-sided) confidence interval for the measured value.

n=number of valid test runs.

P=DQO indicator statistic, distance from the average measured CE value to the endpoints of the 95-percent (two-sided) confidence interval, expressed as a percent of the average measured CE value.

s=sample standard deviation.

$t_{0.975}$ =t-value at the 95-percent confidence level (see Table 1).

x_{avg} =average measured CE value (calculated from all valid test runs).

x_i =the CE value calculated from the i th test run.

Number of valid test runs, n	$t_{0.975}$	$t_{0.90}$	Number of valid test runs, n	$t_{0.975}$	$t_{0.90}$
1 or 2	N/A	N/A	12	2.201	1.363
3	4.303	1.886	13	2.179	1.356
4	3.182	1.638	14	2.160	1.350
5	2.776	1.533	15	2.145	1.345
6	2.571	1.476	16	2.131	1.341
7	2.447	1.440	17	2.120	1.337
8	2.365	1.415	18	2.110	1.333
9	2.306	1.397	19	2.101	1.330
10	2.262	1.383	20	2.093	1.328
1	12.228	1.372	21	2.086	1.325

TABLE 1.—T-VALUES

3.3 The sample standard deviation and average CE value are calculated using Equations 3 and 4 as follows:

$$s = \left[\frac{\sum_{i=1}^n (x_i - x_{\text{avg}})^2}{n-1} \right]^{0.5} \quad \text{Eq 3}$$

$$x_{\text{avg}} = \frac{\sum_{i=1}^n x_i}{n} \quad \text{Eq 4}$$

3.4 The DQO criteria are achieved when all of the general criteria in section 2 are achieved and $P \leq 5$ percent (i.e., the specific DQO criterion is achieved). In order to meet this objective, facilities may have to conduct more than three test runs. Examples of calculating P , given a finite number of test runs, are shown below. (For purposes of this example it is assumed that all of the general criteria are met.)

3.5 Facility A conducted a CE test using a traditional liquid/gas mass balance and submitted the following results and the calculations shown in Equations 5 and 6:

Run	CE
1	96.1
2	105.0
3	101.2

Therefore:

$n=3$
 $t_{0.975}=4.30$
 $x_{\text{avg}}=100.8$
 $s=4.51$

$$a = \frac{(4.30)(4.51)}{\sqrt{n}} = 11.20 \quad \text{Eq 5}$$

$$P = \frac{11.2}{100.8} 100 = 11.11 \quad \text{Eq 6}$$

3.6 Since the facility did not meet the specific DQO criterion, they ran three more test runs.

Run	CE
4	93.2
5	96.2
6	87.6

3.7 The calculations for Runs 1-6 are made as follows using Equations 7 and 8:

$n=6$
 $t_{0.975}=2.57$
 $x_{\text{avg}}=96.6$
 $s=6.11$

$$a = \frac{(2.57)(6.11)}{\sqrt{6}} = 6.41 \quad \text{Eq 7}$$

$$P = \frac{6.41}{96.6} 100 = 6.64 \quad \text{Eq 8}$$

3.8 The facility still did not meet the specific DQO criterion. They ran three more test runs with the following results:

Run	CE
7	92.9
8	98.3
9	91.0

3.9 The calculations for Runs 1-9 are made as follows using Equations 9 and 10:

$n=9$
 $t_{0.975}=2.31$
 $x_{\text{avg}}=95.7$
 $s=5.33$

$$a = \frac{(2.31)(5.33)}{\sqrt{9}} = 4.10 \quad \text{Eq 9}$$

$$P = \frac{4.10}{95.7} 100 = 4.28 \quad \text{Eq 10}$$

3.10 Based on these results, the specific DQO criterion is satisfied. Since all of the general criteria were also satisfied, the average CE from the nine test runs can be used to determine compliance.

4. Lower Confidence Limit Approach

4.1 The purpose of the LCL approach is to provide sources, that may be performing much better than their applicable regulatory requirement, a screening option by which they can demonstrate compliance. The approach uses less precise methods and avoids additional test runs which might otherwise be needed to meet the specific DQO criterion while still being assured of correctly demonstrating compliance. It is designed to reduce "false positive" or so called "Type II errors" which may erroneously indicate compliance where more variable test methods are employed. Because it encourages CE performance greater than that required in exchange for reduced compliance demonstration burden, the sources that successfully use the LCL approach could produce emission reductions beyond allowable emissions. Thus, it could provide additional benefits to the environment as well.

4.2 The LCL approach compares the 80 percent (two-sided) LCL for the mean measured CE value to the applicable CE regulatory requirement. In addition to the general criteria described in section 2, the specific LCL criteria are that either the LCL be greater than or equal to the applicable CE regulatory requirement or that the specific DQO criterion is met. A more detailed description of the LCL approach follows:

4.3 A source conducts an initial series of at least three runs. The owner or operator may choose to conduct additional test runs during the initial test if desired.

4.4 If all of the general criteria are met and the specific DQO criterion is met, then the average CE value is used to determine compliance.

4.5 If the data meet all of the general criteria, but do not meet the specific DQO criterion; and the average CE, using all valid test runs, is above 100 percent then the test sequence cannot be used to calculate the LCL. At this point the facility has the option of (a) conducting more test runs in hopes of meeting the DQO or of bringing the average CE for all test runs below 100 percent so the LCL can be used or (b) discarding all previous test data and retesting.

4.6 The purpose of the requirement in Section 4.5 is to protect against protocols and test methods which may be inherently biased high. This is important because it is impossible to have an actual CE greater than 100 percent and the LCL approach only looks at the lower end variability of the test results. This is different from the DQO which allows average CE values up to 105 percent because the DQO sets both upper and lower limits on test variability.

4.7 If at any point during testing the results meet the DQO, the average CE can be used for demonstrating compliance with the applicable regulatory requirement. Similarly, if the average CE is below 100 percent then the LCL can be used for demonstrating compliance with the applicable regulatory requirement without regard to the DQO.

4.8 The LCL is calculated at a 80 percent (two-sided) confidence level as follows using Equation 11:

$$LC_1 = x_{avg} - \frac{t_{0.90}s}{\sqrt{n}} \quad \text{Eq 11}$$

Where:

LC_1 =LCL at a 80 percent (two-sided) confidence level.

n =number of valid test runs.

s =sample standard deviation.

$t_{0.90}$ =t-value at the 80-percent (two-sided) confidence level (see Table 3-1).

x_{avg} =average measured CE value (calculated from all valid test runs).

4.9 The resulting LC_1 is compared to the applicable CE regulatory requirement. If LC_1 exceeds (i.e., is higher than) the applicable regulatory requirement, then a facility is in initial compliance. However, if the LC_1 is below the CE requirement, then the facility must conduct additional test runs. After this point the test results will be evaluated not only looking at the LCL, but also the DQO of ± 5 percent of the mean at a 95 percent confidence level. If the test results with the additional test runs meet the DQO before the LCL exceeds the applicable CE regulatory requirement, then the average CE value will be compared to the applicable CE regulatory requirement for determination of compliance.

4.10 If there is no specific CE requirement in the applicable regulation, then the applicable CE regulatory requirement is determined based on the applicable regulation and an acceptable destruction efficiency test. If the applicable regulation requires daily compliance and the latest CE compliance demonstration was made using the LCL approach, then the calculated LC_1 will be the highest CE value which a facility is allowed to claim until another CE demonstration test is conducted. This last requirement is necessary to assure both sufficiently reliable test results in all circumstances and the potential environmental benefits referenced above.

4.11 An example of calculating the LCL is shown below. Facility B's applicable regulatory requirement is 85 percent CE. Facility B conducted a CE test using a traditional liquid/gas mass balance and submitted the following results and the calculation shown in Equation 12:

Run	CE
1	94.2
2	97.6
3	90.5

Therefore:

$n=3$

$t_{0.90}=1.886$

$x_{avg}=94.1$

$s=3.55$

$$LC_1 = 94.1 - \frac{(1.886)(3.55)}{\sqrt{3}} = 90.23 \quad \text{Eq 12}$$

4.12 Since the LC_1 of 90.23 percent is above the applicable regulatory requirement of 85 percent then the facility is in compliance. The facility must continue to accept the LC_1 of 90.23 percent as its CE value until a new series of valid tests is conducted. (The data generated by Facility B do not meet the specific DQO criterion.)

5. Recommended Reporting for Alternative CE Protocols

5.1 If a facility chooses to use alternative CE protocols and test methods that satisfy either the DQO or LCL and the additional criteria in section 4., the following information should be submitted with each test report to the appropriate regulatory agency:

1. A copy of all alternative test methods, including any changes to the EPA reference methods, QA/QC procedures and calibration procedures.
2. A table with information on each liquid sample, including the sample identification, where and when the sample was taken, and the VOC content of the sample;
3. The coating usage for each test run (for protocols in which the liquid VOC input is to be determined);
4. The quantity of captured VOC measured for each test run;
5. The CE calculations and results for each test run;
6. The DQO or LCL calculations and results; and
7. The QA/QC results, including information on calibrations (e.g., how often the instruments were calibrated, the calibration results, and information on calibration gases, if applicable).

6. Recommended Recordkeeping for Alternative CE Protocols.

6.1 A record should be kept at the facility of all raw data recorded during the test in a suitable form for submittal to the appropriate regulatory authority upon request.

Subpart LL—National Emission Standards for Hazardous Air Pollutants for Primary Aluminum Reduction Plants

AUTHORITY: 62 FR 52407, Oct. 7, 1997, unless otherwise noted.

§ 63.840 Applicability.

(a) Except as provided in paragraph (b) of this section, the requirements of this subpart apply to the owner or operator of each new pitch storage tank and new or existing potline, paste production plant, or anode bake furnace associated with primary aluminum

production and located at a major source as defined in § 63.2.

(b) The requirements of this subpart do not apply to any existing anode bake furnace that is not located on the same site as a primary aluminum reduction plant. The owner or operator shall comply with the State MACT determination established by the applicable regulatory authority.

(c) An owner or operator of an affected facility (potroom group or anode bake furnace) under § 60.190 of this chapter may elect to comply with either the requirements of § 63.845 of this subpart or the requirements of subpart S of part 60 of this chapter.

§ 63.841 Incorporation by reference.

(a) The following material is incorporated by reference in the corresponding sections noted. This incorporation by reference was approved by the Director of the Federal Register on October 7, 1997, in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of approval, and notice of any change in the materials will be published in the FEDERAL REGISTER. Revisions to “Industrial Ventilation: A Manual of Recommended Practice” (22nd ed.) are applicable only after publication of a document in the FEDERAL REGISTER to amend subpart LL to require use of the new information.

(1) Chapter 3, “Local Exhaust Hoods” and Chapter 5, “Exhaust System Design Procedure” of “Industrial Ventilation: A Manual of Recommended Practice,” American Conference of Governmental Industrial Hygienists, 22nd edition, 1995, IBR approved for §§ 63.843(b) and 63.844(b); and

(2) ASTM D 2986–95A, Standard Practice for Evaluation of Air Assay Media by the Monodisperse DOP (Diocetyl Phthalate) Smoke Test, IBR approved for section 7.1.1 of Method 315 in appendix A to this part.

(b) The materials incorporated by reference are available for inspection at the Office of the Federal Register, 800 North Capitol Street NW., Suite 700, 7th Floor, Washington, DC, and at the Air and Radiation Docket Center,